

DISTRIBUTION & WAREHOUSING

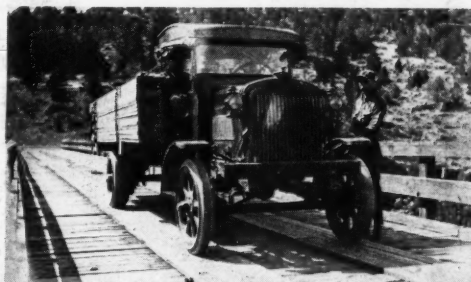
FORMERLY
TRANSFER & STORAGE

Vol. XIX, No. 2

G. F. C. Building, 239 W. 39th St.
New York, N. Y.

February, 1920

*3½-4 ton Denby used by
Redmond Pine Mill Com-
pany, Redmond, Oregon, in
hauling from mill to yard—
20 miles, through heavy sand
and over bad grades.*



*Denby trucks have found a
very wide use in Central
and Eastern Oregon, be-
cause of their dependability
and the ease with which
they negotiate bad roads.*



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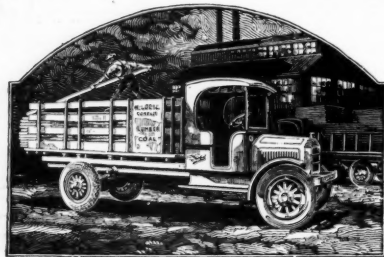
The popularity of Denby trucks in the
lumber industry in the North West, is the
result of their ability to handle, easily and
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most trucks.

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adapted to any
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Denbys, is your assurance that a Denby
will do any task you may demand of it;
and that it will do all kinds of work with
perfect dependability.

Denby Motor Truck Company, Detroit

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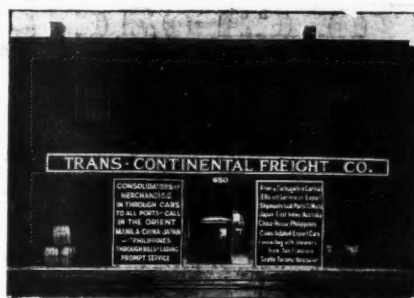


Nothing so clearly demonstrates sound engineering and right manufacturing as the ability of Garford Motor Trucks to give—*Low Cost Ton-Mile.*

Garford

Lima, Ohio

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A Service which saves dollars for your customers and begets Good Will for storage and transfer men, such the service afforded Shippers of Household Goods by the TRANS-CONTINENTAL FREIGHT COMPANY.

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General Merchandise for Export

Another Plant Operated in New York



Upper Left—New York Building Used for Pacific and Atlantic Exports.

Upper Right—Chicago Warehouse Used Principally for Handling Household Goods.

Right—A section of the Largest Warehouse Operated by the Company in Chicago.



Above—Another Plant operated in Chicago.

Right—Cincinnati Warehouse.

Below—Seattle Warehouse.



DISTRIBUTION & WAREHOUSING

FORMERLY
TRANSFER & STORAGE

PUBLISHED ON THE FIRST OF EACH MONTH BY
THE CLASS JOURNAL CO.

U. P. C. Building, 239 West 39th Street, New York City

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Cable Address.....Autoland, New York

Long Distance Telephone.....8760 Bryant, New York

Member of the Associated Business Papers, Inc.

Subscription Rates

United States and Canada.....\$2.00 per year

Extra postage west of the Mississippi River

on account of Zone Postage Law......50 per year

Foreign Countries.....3.00 per year

Single Copies......20 each

Advertisements

Changes in copy for advertisements in the next issue to be
in the office of publication not later than 10 days before
date of publication.

CONTENTS OF ISSUE COPYRIGHTED, FEBRUARY,
1920, BY THE CLASS JOURNAL COMPANY

ARTICLES

Historical Survey of the Development of the Ware-
house. By Charles H. Moores..... 7

Central Warehousemen's Club Adopts Standard
Rate Guide..... 10

Campaign to Eliminate Warehouse Fire Hazards
Begun by Board of Fire Underwriters..... 19

Truck Shows and Highway Transport Conferences
at New York and Chicago Shows..... 22

Effect of the War Upon the Cold Storage Industry.
By I. C. Franklin..... 27

The Industrial Traffic Manager and the Return of
the Railroads..... 32

Organization of National Furniture Warehouse-
men's Association is Assured..... 34

The Time Clock as an Aid to Analyzing Labor and
Handling Costs..... 36

Ohio Warehouse and Transportation Association Is
Formally Organized..... 37

Chicago Warehousemen Must Justify Rates..... 40

Loose-Leaf Folder System for Rate Records..... 50

DEPARTMENTS

Editor's Page..... 38

From the Legal Viewpoint..... 41

Readers' Forum..... 43

Warehousing News..... 51

NEWS

Weather Affecting Warehouse Stocks..... 44

\$75,000 Warehouse at Johnstown, Pa..... 44

Controversy Over Warehouse Insurance..... 45

Eight Warehouses Join A. W. A..... 46

Minnesota Association Opens Headquarters..... 46

Federal Storage of Farm Products Proposed..... 47

Wool Warehouses Will Be Regulated..... 47

Revised List of A. W. A. Committees..... 48

Rural Motor Line Formed in Minnesota..... 48

Interpretation of Motor Truck Taxes..... 49

Baltimore Seeks Warehouse Growth..... 49

Chicago.....446 Marquette Bldg.
New York.....324 Whitehall Bldg.
Boston.....640 Old South Bldg.
Philadelphia.....272 Drexel Bldg.
Baltimore.....412 Garrett Bldg.
Pittsburgh.....437 Oliver Bldg.
Detroit.....527 Ford Bldg.

St. Louis.....1537 Boatmen's Bank Bldg.
New Orleans.....203 Marine Bank Bldg.
San Francisco.....64 Pine Street
Los Angeles.....517 Central Bldg.
Seattle.....402 Arctic Bldg.



Something New for the New Year Through Consolidated Merchandise Cars to the West

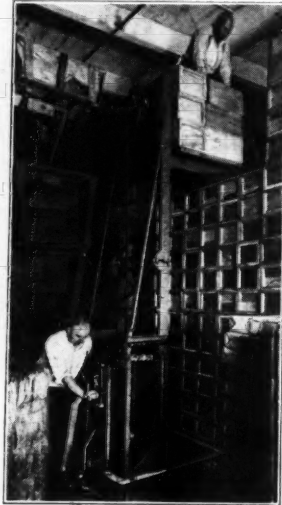
Heretofore Western Railroad tariffs have not provided car load rates for mixed commodities. The new "Consolidated Classification," effective December 30, 1919, authorizes such rates. This enables us to quote reduced freight rates to the Merchants and Manufacturers of the East on shipments of a great variety of articles which will be consolidated into complete car loads and forwarded direct without breaking bulk, to Distributing Centers in the West; thus not only effecting a substantial saving in freight cost, but affording quicker time and eliminating transfers en route.

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And as a labor-saver—one or two men with the Hand-I-lift can stack as much goods as **three** to **six** men without it, and do it quicker and cheaper.

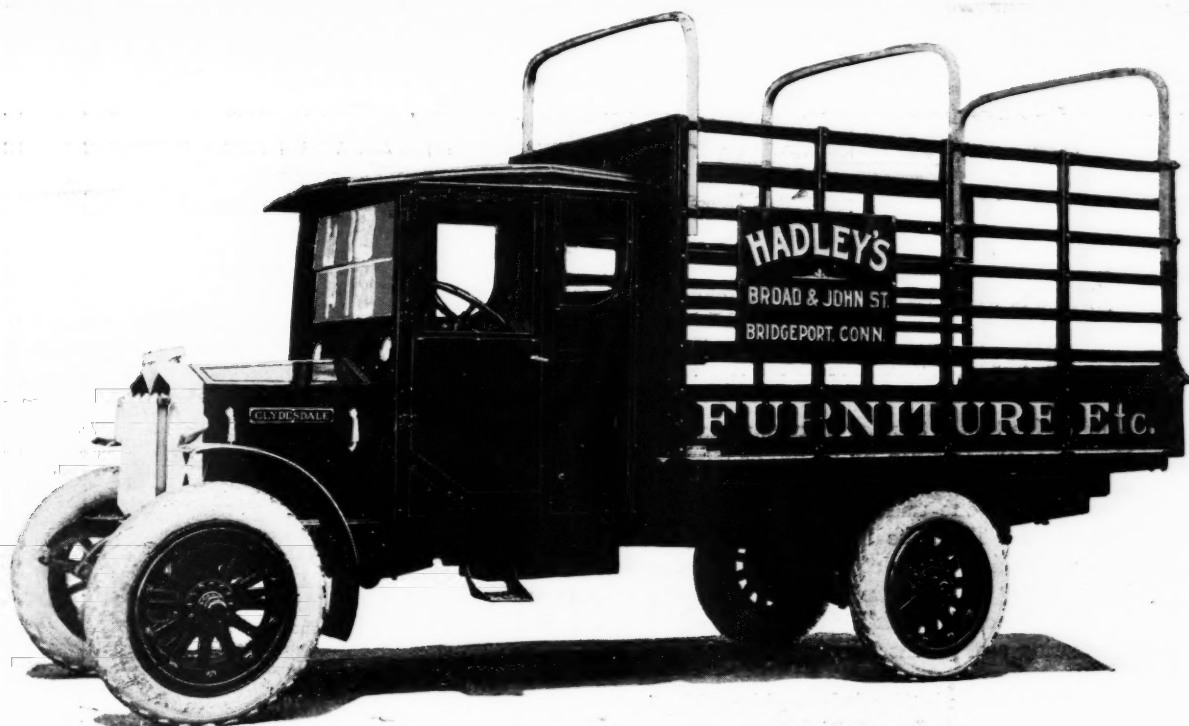
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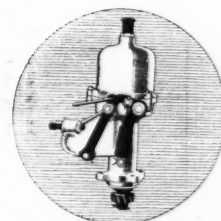
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One to Five Tons Net Load

THE CLYDESDALE MOTOR TRUCK COMPANY, CLYDE, OHIO

CLYDESDALE

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Your friends have been selecting Federal Motor Trucks for the last ten years. When you come to select your next motor truck, why not investigate and find out why the Federal has been such a success in your field?

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DETROIT, MICH.

*"Shorten the Miles
to Market—Use
Motor Trucks"*



This 3 1/2-ton Federal is owned by the Titcombe Bros. of Detroit, Michigan. It is only one of the Federals of the household moving business that has been a cause of big profits for its owner.

DISTRIBUTION & WAREHOUSING

ENTERED AS SECOND CLASS MAT-
TER, JANUARY 29, 1916, AT THE POST

FORMERLY
TRANSFER & STORAGE

OFFICE AT NEW YORK, NEW YORK.
UNDER THE ACT OF MARCH 3, 1879.

PUBLISHED MONTHLY

Volume XIX

NEW YORK, FEBRUARY, 1920

No. 2

HISTORICAL SURVEY *of the Development* OF THE WAREHOUSE*

By

CHARLES H. MOORES

(of Moores & Dunford, Warehouse Engineers)

I. HISTORY OF THE WAREHOUSE

THE history of the warehouse dates back to remote antiquity, to the very dawn of civilization. It goes back to the days when man ceased to forage for his food, to provide for his needs day by day like the wild beast, and began to sow and reap and lay by stores in time of plenty for times of want; to the days when he commenced to weave crude cloth and fashion rough implements. When tribe first began to trade with tribe the basic functions of the warehouse were inaugurated, even though they may not have been recognized as such. The warehouse is the foundation upon which all trade was built and upon which the complicated structure of the commerce of modern times still stands.

All through ancient history we see constant reference to the warehouse. In the Bible we read how Joseph collected and stored grain in the seven years of plenty and in the seven years of famine which followed opened the storehouses of Egypt and fed the people

from them. We read about the great storehouses of the Persian kings, of Assyria, Arabia, India and even China, from which the caravans started out on their long, weary journeys across desert and mountain range, and from which, too, in many instances, countless ships set out to sail the seas, laden with goods for far away countries. Rome, in the days of the Empire, had enormous warehouses, granaries and storehouses for goods of all kinds which were brought to her, the center of the world, from the utmost ends of the earth. Grain, foodstuffs, wines, silks, spices, incense, wool, jewels, and many other things were stored. Even ice was brought to the city from the mountains in winter and stored for the use of the rich nobles during the long hot summer season.

In the Middle Ages

Again, through the middle ages we see constant reference to warehousing and note that extensive

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buildings were erected, many of which were very beautiful architecturally, and some of which still stand and are admired by the traveler in Europe to-day. The great warehousing centers of the ancient world were all on the eastern shore of the Mediterranean. When, however, the cities of Italy began to grow in commercial importance, the warehousing center moved west with the flow of trade, and Venice, by her liberal warehousing policy, actually wrested the commercial supremacy of the Mediterranean from Constantinople. To Venice, "The Queen of the Adriatic," her ships brought all the goods of the East. Here they were stored in bond for the traders from the north until needed by them, and from Venice the goods went north by way of Nuremberg, which, at that time, was one of the warehousing and distributing centers of central Europe. A bonded warehouse was accorded to the Germans by the Venetians, where they could offer their goods for sale; but it was with the stipulation, however, that they could only do so through Venetian dealers. A similar privilege was also accorded to the Armenians, the Turks and the Moors. It is an interesting sidelight on the times to note that this privilege was denied the Greeks, due to a strong prejudice which existed in Venice against them. A very marked influence was exerted upon the growth and development of trade—and with it, of warehousing—by the "Guilds" of the middle ages. These came into existence in Italy about the eleventh or twelfth century. They were combinations or brotherhoods of merchants in different lines of trade, and were formed originally for the actual physical protection of their members in those turbulent times, as well as for the advancement of their particular line of trade or the particular art around which they were founded. Some of these "Guilds" became very rich and grew very powerful politically. Among the most notable and influential of these were the Armorers Guild, which practically controlled the making of armor; the Wool Merchants Guild; the Silk Merchants Guild; the Guild of the Bakers and Grain Merchants, and the Comocini Guild—the Cathedral Builders Guild—whose members designed and built almost all of the great cathedrals of Europe from the eleventh to the seventeenth centuries.

Price Fixing Is Not New

There were erected large and sometimes handsome buildings called "Guild Halls," which were the headquarters of the Guild. Here their meetings were held, their administration carried on, prices set, and policies formulated. As a rule, too, space was pro-

vided in these halls for the safe storage of goods, such space being regularly rented to the individual members of the guild. These guilds were, so to speak, the cradles of the warehouse business. They were the sanctuaries in which the spirit of trade was preserved just as the spirit of learning was preserved in the monasteries during the dark ages. In them the business of warehousing as an individual business, run by individuals, for the benefit of individuals, had its inception.

The warehouses of the ancients were either the property of the state or of the king, who sold or dispensed to the people at his pleasure the grain, provisions, or whatever stores they contained; or they were owned by powerful individual merchants who stored in them their own goods solely. The idea of the leasing of space to the individual at a regular storage rate seems to have been first introduced by the Guilds, and it was the amplification of this idea which we have already seen enabled Venice to become the center of the commercial world.

During mediæval times, however, large warehouses under state and municipal control, as well as those of the Guilds, continued to flourish. For instance, there was established in England during the fifteenth and sixteenth centuries a system of municipal granaries, the municipality buying grain and storing it in these to protect its citizens from having to pay exorbitant prices during the winter months. This system, however, broke down in England in the seventeenth century due to the fact that a sufficient supply to keep prices near the normal level began

to be brought in by individual competition. Elsewhere the system prevailed somewhat longer. In Geneva it was in existence until the beginning of the nineteenth century. This patronage of state still exists in some countries and exerts an influence most beneficial to warehousing institutions. In Germany and France the government continues to do all it can to foster home production of foodstuffs and to encourage the storing of these, with the idea of keeping on hand an adequate supply in case of need. To this end as late as 1902 a royal commission was appointed in England to look into the problem of the storage of a food supply on a large scale under the protection of the Crown.

At that time the total food supply of England, if outside sources were cut off, would only have been sufficient for from four to six weeks. How wise this policy has been clearly demonstrated during the war, especially and most emphatically in the case of Germany.



Charles H. Moores, one of America's leading warehouse engineers

II. BUSINESS OF THE WAREHOUSE

THE business of warehousing is essentially a fiduciary one. The warehouseman is a trustee—a guardian of valuable property—just as the banker is. In this broad sense many branches of human activity are really nothing but warehouse propositions under a different guise. For instance, the bank is the storehouse of money; the library is the storehouse of books; and even the school, the college, the university and the church, are, so to speak, the custodians, the storehouses of human knowledge, ideas and ideals.

Fourfold Service

However, whether warehousing in its narrower sense be looked upon as a commercial institution or as an industry, it seems to involve a fourfold economic service—(1) the renting of space, (2) the performance of labor, (3) the preservation of property from deterioration, and (4) the taking of risks. Its normal place in the scheme of world activities is determined by four relationships—with the manufacturer, with the transporter, with the merchant, and with the banker. Of these economic relationships, all have been established on a satisfactory and permanent basis, except the last, that with the banker. This is of course the most delicate and most complicated of the points of contact between the warehouse and other fields of human endeavor. Here particularly there still remains much to be accomplished. "The Investigator" says in an article printed about 1903:

"A warehouseman is a custodian of values just as much as a banker. The honorable banker has no objection to his integrity being safeguarded, and there is no doubt that many warehousemen would welcome similar safeguards being placed about their business. The knowledge that a warehouse receipt represents exactly what it purports to represent, and the elimination of all possible chance of the issuance of fraudulent receipts, would inure greatly to the benefit of the warehouseman as well as all others concerned. There are times when production greatly exceeds consumption. At such times there are large quantities of goods in storage. It behooves the warehouseman to establish some system by which absolute security is assured the holder of the warehouse receipts. If such a system can be established, the warehouse receipt should be one of the most desirable forms of collateral and the warehousing industry placed on a higher plane by the elimination of the present possibilities of fraud."

The Warehouse in Banking

While great strides have been made along these lines since the above words were written, still there is much to be accomplished before the warehouse business is finally established on the high plane which its nature, its antiquity and its dignity merit. There has been more progress toward this end in Europe than in this country, and the fiduciary character of the warehouse is there more clearly understood and more generally recognized. It is interesting to note that the Imperial Bank of Germany owned, controlled and operated about twenty warehouses throughout the Empire, and that the goods stored in these ware-

houses, as well as goods stored in other warehouses of recognized standing, formed part of its regular credit system. In other words, such warehouse receipts were taken as collateral for loans, just as any other convertible security was. This system, while operative to some extent in this country, has by no means been developed here as it has abroad. As a matter of fact, there has been practically no development here of this economic relation to credit and banking. The bankers, financiers and money interests, as well as the manufacturers, jobbers and distributors, have failed to take advantage of this important feature of the warehouse business, and only since the World War has the warehouse as an important commercial enterprise been brought to the attention of large business interests.

Wartime Facilities Insufficient

Shortly after the entry of the United States into the World War the lack of warehouse facilities was brought sharply to the attention of the business world as well as the general public, and it was found that even in our larger cities a sufficient amount of food products and other necessities of life were not in store to maintain these cities for thirty days. Prior to this time the necessity for storage warehouses at points of distribution had not been given serious consideration. This was no doubt due to the fact that we had considered ourselves secure in the knowledge that the United States was a self-supporting country, so far as necessities of life were concerned; and because of our efficient railway system we felt confident of being able to provide adequate distribution of our products from one end of the country to the other. How this self-complacency fell down in the emergency is too recent history to require explanation at this time. What contrast between our inefficiency in this direction and the efficiency of European countries! If Germany, France and England had been in our position when war was declared, and their railroads necessarily taken over for the transportation of troops and munitions, what would have happened to the population?

The growth and development of a business covering as broad a field as does the warehouse business naturally leads to specialization. There are to-day a number of highly specialized branches, and likewise others, now in their infancy, which have wonderful possibilities. It is of considerable historical as well as practical interest to trace the development of the more important branches of the business and follow through the causes which led to the growth of each and the relation of these causes to the fundamental economic relationships of the warehouse with the general business and trade of the world. In doing this the treatment will be confined as closely as possible

(Concluded on page 43)

Central Warehousemen's Club Adopts a

STANDARD RATE GUIDE

At Kansas City convention—Attempt to fix an arbitrary tariff is defeated—Traffic managers present discuss plan for national organization

A RATE guide is to be recommended by the Central Warehousemen's Club to its merchandise members situated in about twenty states in the Mississippi Valley and Central, Rocky Mountain, Northwestern and Pacific Coast sections. Issuance of this document, which is a basis for making tariffs, was decided upon at the organization's convention held at Kansas City on Jan. 13, 14 and 15.

Efforts made by some of the members at the meeting to establish rates arbitrarily for the warehouses to operate under were defeated after discussions in which it was pointed out that any action looking toward rate building would make the members liable to prosecution under Federal or State laws.

Predictions were made that in time the warehousemen in each state would be regulated by commissions, as to-day in Illinois, Minnesota and California. It is anticipated that warehousemen by utilizing the guide to be circulated by the Central Warehousemen's Club will place themselves in a position to defend their rates when state legislative actions are taken.

In effect, the proposed guide will enable every warehouseman who bases his rates upon it to increase his tariffs for handling and storing commodities—to calculate these tariffs scientifically in a way to bring him higher returns on his investment.

A tentative fifteen-page rate guide was submitted some months ago to the association's members in the form of a printer's proof for their consideration and criticism. This proposed guide included a storage base rate table (see page 11) and a table of storage rates (see pages 13 to 18 inclusive) which placed commodities in classifications.

6¼ Cents Tentative Basis

For illustration, hair in bales, horseshoes in boxes and cases, incubators, kitchen cabinets, and lemonade straws in boxes, all were placed in Classification I. Classification I was calculated to earn 6¼ cents a square foot, computed on the theory that the floor load for each square foot in a standard warehouse is 250 pounds and that the proper piling height per square foot is 7½ feet.

The return on the square foot is arbitrarily fixed by the state commission in at least one state at 6¼ cents, and so in the tentative guide prepared 6¼ cents was selected as a base to work on. Thus commodities in Class J, such as lamp chimneys in barrels, dry paint in barrels and sugar in barrels, were calculated to earn .06875 cents per square foot, Class J being one step higher than Class I in earning power. Similarly, other commodities were placed in classifications which graduated below or above Classification I, the standard working base tentatively selected.

Discussion at the convention developed objections not to the theory of the guide but to the physical make-up of the tables. It was agreed that the method of graduating was correct, and that virtually all the commodities had been classified correctly, but it was considered that the guide in its final appearance should not be circulated in any printed form which would show that 6¼ cents should be recommended as an actual working basis.

The reasoning behind these objections was that the day would come when warehousemen would be regulated and that then it would be unfair to the individual storage executives for them to have to present to state or federal regulatory bodies a guide which conveyed the impression that the warehouses had been operating on a 6¼ cent basis. The argument was advanced that the guide in its final form should be circulated with the symbols so printed that any warehouseman could select any one of the graduated steps as his own operating basis.

The change suggested was approved, and under the guide as it will eventually go to the members any warehouseman may select 6¼ cents as his working basis, or he may decide to operate on a 7½ cent basis, or on a 10 cent basis, or on a 12½ cent basis, his option being exercised according to his own ideas as to the present-day value of his plant, what his labor costs amount to, his inaccessibility to rail terminal and other fundamentals in which his costs play important parts.

Under the approved change, commodities classified in the 6¼ cent class will not have the letter "I" as their symbol; instead, they will have "zero" as their identifying mark. The successive higher steps—having the letters "J" to "S" inclusive in the tentative guide—will be identified in the final guide with the figures 1 to 10 respectively. Under this system, a warehouseman who desires to operate on a 10 cent basis will eliminate the figure "6" (equivalent to the letter "O" in the first column of the tentative storage base rate table on page 11) and insert instead the word "zero." The downward graduations would then be minus 1, minus 2, minus 3, minus 4, minus 5, minus 6 and minus 7 (instead of the respective letters "N," "M," "L," "K," "J," "I" and "H" in the tentative storage base rate table on page 11); and the upward graduations from his selected "zero" would be 1, 2, 3 and 4 (instead of the respective letters "P," "Q," "R" and "S" in the tentative storage base rate table on page 11).

Thus the warehouseman who decided to operate on a 10 cent basis would take a pencil and mark in the necessary alterations in his table of storage rates (on pages 13 to 18 inclusive.)

For example, in the columns marked "Storage Reference—tentative" (in the table of storage rates on pages 13 to 18 inclusive) commodities calculated to earn 10 cents a square foot include hemp, phonographs, tomato pulp cans not crated, and wax paraffine in bags, and these have the symbol "O." In the column marked "Storage Reference—final," these commodities are given the figure "6," inasmuch as "O" in the tentative storage base rate table (on page 11) is six classes above the 6¼, or "I," basis. But the warehouseman who decides to operate on the 10 cent basis will with his pencil mark the word "zero" in place of the figure "6," in the column marked "Storage Reference—final," after the commodities, hemp, phonographs, tomato pulp cans not crated and wax paraffine in bags.

Modifications Remain Unchanged

With 10 cents as his selected zero or working basis, this warehouseman will then make the necessary corresponding changes throughout the table of storage rates (on pages 13 to 18 inclusive), so that when his changes had been entered the commodities malt extract in case, nut meats in case, and type-writers—as examples—would have the figure "4" entered against them in the column marked "Storage Reference—final" (in the table of storage rates on pages 13 to 18 inclusive). Similarly, all commodities in the tentative "I" classification would have the symbol "—6" entered against it in this "final" column, inasmuch as these commodities are placed in the sixth classification below the "O" (equivalent to this warehouseman's selected "zero") commodities.

Regardless of insertion of figures in the final guide as compared with the letters in the tentative one, and regardless also of what square-foot-earning base a warehouseman may decide to operate under, the "modifications" (shown in the storage base rate table on page 11) do not change, and accordingly the figures in the "modifications" column in the table of storage rates (on pages 13 to 18 inclusive) do not change.

(Continued on page 12)

STORAGE BASE RATE TABLE

The Base Rate Table is computed on the following principles:

- (1) Floor Load per square foot..... 250 lbs.
 (2) Piling height (7-101/432 or 7.2338) and called for convenience..... 7 1/4 ft.
 Equilibrium—34.559 lbs. per cubic foot.

CLASS	Rate per Cwt.	Rate per Cu. In.	Rate per Cu. Ft.	Earns per Sq. Ft.
"H" — 7 1/4.....	2 1/4c	.0000045	.007776	.05625
"I" — 7 1/4.....	2 1/2c	.000005	.008640	.0625
"J" — 7 1/4.....	2 3/4c	.0000055	.009504	.06875
"K" — 7 1/4.....	3c	.000006	.010368	.075
"L" — 7 1/4.....	3 1/4c	.0000065	.011232	.08125
"M" — 7 1/4.....	3 1/2c	.000007	.012096	.0875
"N" — 7 1/4.....	3 3/4c	.0000075	.012960	.09375
"O" — 7 1/4.....	4c	.000008	.013824	.10
"P" — 7 1/4.....	4 1/4c	.0000085	.014688	.10625
"Q" — 7 1/4.....	4 1/2c	.000009	.015552	.1125
"R" — 7 1/4.....	4 3/4c	.0000095	.016416	.11875
"S" — 7 1/4.....	5c	.000010	.017280	.125

EXPLANATION

From the above it will be seen that Class I which has been used as the standard classification in compiling this rate guide yields the warehouseman 6 1/4 cents for each square foot of usable floor space where merchandise is stored in bulk and piled to a height of 7 1/4 feet, or 2 1/2 cents per cwt. on heavy merchandise piled to a floor load capacity of 250 lbs. per square foot, which is the equivalent of 6 1/4 cents per square foot of usable floor space.

A normal package is one weighing exactly 34 1/2 lbs. per cubic foot. If, therefore, a package weighs 34 1/2 lbs. or less per cubic foot, the storage price should be based on the "Bulk" or cubic inches; if it weighs more than 34 1/2 lbs. per cubic foot the storage price should be based on the "Weight."

Many packages offered for storage, because of their irregular shape and for other reasons, cannot be piled 7 1/4 feet high, and such packages should necessarily take a higher rate than that given in Class I. Should they pile 6 1/2 feet the "Bulk" rate should be ascertained from Class J in this book; should they pile only 6 feet, Class K; 5 1/2 feet, Class L; and 5 feet, Class M. Heavy merchandise in packages of irregular shape or which cannot be piled up according to the base rate tables in this book should be charged for at the rate of 6 1/4 cents per square foot of floor space per month.

f In classifying commodities not listed in this book and which you will no doubt be asked to store, it would be well for you to observe the following uniform method of figuring which will be in line with the method used in classifying the various commodities listed herein.

- 1st. All barrels, half-barrels, kegs, and packages of similar shape containing dry merchandise, should be advanced one class, that is, from Class I to Class J, to cover the loss of space in piling same.
- 2nd. All barrels, etc., containing liquid merchandise and commonly known as wet barrels, should be advanced four classes, that is, from Class I to Class M, to cover loss of space in piling, damage to floors from leakage, possibility of damage to other merchandise, additional lost space to permit inspection, expense of restoring space to original condition, etc.
- 3rd. Barrels and boxes containing green fruit and similar merchandise should be advanced to Class M on account of lost space in piling, protection against freezing, permitting access to same for frequent inspection, etc.
- 4th. The above, and many other reasons, have been considered in classifying commodities herein, and in order to acquaint all warehousemen with the methods used throughout this rate guide, reference numbers have been inserted in the "Modifications" column opposite the names of all commodities which should take a rate higher than the standard base rate of I 7 1/4, which if matched up with the numbers appearing under the following list of "Modifications" will give a general idea of the reasons for doing so.
- 5th. When a commodity has been classed as MM, or two letters of any classification, the rate in the corresponding single letter class should be doubled.

MODIFICATIONS

- | | |
|---|---|
| 1. Value. | 9. Hazardous. |
| 2. Fragility. | 10. Malodorous. |
| 3. Liability to claims. | 11. Dusty. |
| 4. Small volume. | 12. Mussy. |
| 5. Possible damage to other goods because of leakage. | 13. Requires access for examination or treatment. |
| 6. Protection against freezing. | 14. Lost space in piling. |
| 7. Isolation. | 15. Fermentation, causing explosion. |
| 8. Attractive to vermin. | |

The foregoing table is one originally prepared and submitted in printer's proof form to members of the Central Warehousemen's Club. When this has been revised for dissemination as part of a complete new rate guide, the word "zero" will be substituted for the letter "I"; the symbol "—1" will be substituted for the letter "H"; and the figures 1 to 10 inclusive will take the places of the letters "J" to "S" respectively, in the column under the heading "Class." In the text of the explanation the corresponding changes will be made wherever necessary—for example, the fifth fundamental in the "uniform methods of figuring" mentioned in the "explanation" would read: "When a commodity has been classed as Double 4, the rate in the corresponding single number should be doubled."

(Continued from page 10)

In relation to the commodities:

In the table of storage rates the commodity "mustard, in glass" (on page 16) has the letter "K" in the "tentative" column, and the figures "2" and "6" in the "commodities" column. "K" is equivalent to two classes above "I," which was the selected base, representing 6¼ cents, in the tentative guide.

"2" is equivalent to two classes above "zero," the selected base (still representing 6¼ cents in the guide as it will be finally printed).

The hyphenated figures, "2-6," refer back to the "modifications" in the storage base rate table (on page 11), where we find that "2" is "fragility" and "6" is "protection against freezing." The significance of placing modifications after "mustard, in glass" is that the glass is liable to breakage and that the mustard itself is subject to freezing; and that the warehouseman is justified, if he so desires, in advancing "mustard, in glass" to a higher classification and consequently make higher charges for storing and handling. Similarly, "paint, liquid, in barrel" may in the opinion of the guide makers, be classified at a higher rate because it is liable to damage other goods through leakage, because it is mussy, and because there is lost space in piling.

THE committee which prepared the tentative guide and which will work out the final one consists of John Bekins, Omaha; R. V. Weicher, Denver; Sidney A. Smith and Albert Peterson, Chicago; John P. Feuling, St. Paul; W. L. Hinds, Des Moines; S. M. Woodson, Kansas City, and George Hamley, Minneapolis.

It was explained to the members that the weight per square foot was "one of the most deceptive things in the business" and that it was for this reason that all dry barrels were placed in Classification J (or "1"—that is, one step above "zero"—in the final guide). Regarding modifications or penalties, it had been found impossible, it was explained, to place them on all commodities, notably on such a standard one as sugar in 100-pound bags.

During discussion the question was asked: "Should correct specific valuation be placed on warehouse receipts, inasmuch as a commodity might be charged for on the basis as when goods entered warehouse, whereas the goods might later double in value?" It was agreed that this should depend on whatever contract was made with the individual storer, but that no commodity should be charged for without a declaration of value.

On question as to what is the actual usable space in a warehouse, a general understanding was reached that:

First, available space means the actual space where merchandise is stored, or about 66 per cent of the gross space in warehouse; and

Second, usable space includes the honeycomb, and is 50 per cent of the gross.

Thus, if the gross space is 100,000 square feet, 66,000 square feet is the available space, but only 50,000 square feet is the usable space, and the 6¼ cent principle applies to the usable space.

Mr. Bekins emphasized that the committee had nothing to do with fixing rates. "We have no right to do that," he said. "It is not up to us to say what rates the warehousemen shall charge individually." Mr. Woodson also explained that the guide did not attempt to force rates on any warehouseman. If the warehouseman wanted to earn a higher return for each square foot, he explained, he could advance his commodities into higher classifications by selecting a higher base to work from.

W. I. Ford of Dallas, Texas, pointing out that rates in Texas were not fixed by a commission, said it would be unlawful for the warehousemen to fix rates for any state.

OPINION was expressed by some members that a 9% cent basis should be fixed arbitrarily in the new guide as a working basis, inasmuch as warehousemen were operating under 1920 costs and that the 6¼ cent basis was operative among most warehouses in the days when conditions were different. Proponents of this suggestion argued that when eventually the public regulatory bodies came to examine guides, the prospect for having higher rates fixed would be better if the warehousemen were then in a position to prove they had been working on a 9% cent rate rather than a 6¼ cent basis.

It was brought out also that if a warehouseman operated under the tentative guide—that is, with 6¼ or 7½ or 9% cents as any selected basis—it would be a simple matter for his competitor to learn what his rates were and to engage in rate cutting practices.

The convention could not agree on the question whether 6¼ should be selected as the base rate, or 9% substituted, and the deadlock threatened to nullify the entire work of the committee and to result in the tentative guide being thrown out.

It was at this point that Robert M. Jenkins of the Union Transfer & Storage Co., Madison, Wis., suggested a solution

which broke the deadlock—that the letters, as identifying symbols for bases, be eliminated, and that "zero" be substituted for any base which any warehouseman might decide to work from, with the graduated steps being identified by numbers. Under this system, Mr. Jenkins explained, a warehouseman could choose any square-foot-earning power as his base and operate from that without his competitor knowing what that base was. The system would preclude also, he explained, any idea that rates were being fixed anywhere.

It was decided that when the new guide was sent out, an explanatory memorandum, should accompany it recommending that owing to present-day conditions a 7½ cent basis (striking an average between 6¼ and 9%) was a justifiable and defensible one to work from. This memorandum will not be printed as part of the guide, although an effort was made by some of the members to have it so; those who objected declared that it would in effect be an endeavor to fix rates.

"Don't put a collar on these men's necks," Mr. Ford said. "You violate the laws of the United States and most of the states in trying to fix a rate. You have no right to put anything into a guide so that a traffic manager can walk into your office and say, 'Here, you're profiteering on me.' You would be forcing a warehouseman in Texas to keep rates the same as those in Minneapolis. Under the new system, we can tell a traffic manager what rates we are operating under. Stay off price-fixing. Put yourself in a position to make a full explanation to a traffic manager. It is only fair to him for you to be able to do that."

"It took ten years after the Civil War for prices to get back. When you buy supplies to-day you pay current prices. When you store you should charge on the present value of your building. But it is not our business to tell the warehousemen what they should charge; it is to give them a fair basis to work on only. Leave the rate-fixing open."

It was decided a committee should be appointed to figure out a tonnage basis of labor for insertion in the new guide; and that a separate labor guide, with handling charges arranged commodity by commodity, be issued subsequently.

TRAFFIC MANAGERS DISCUSS PLAN FOR NATIONAL ASSOCIATION

AT the session devoted to relations with traffic managers, S. M. Woodson declared that interests between traffic executives and warehousemen were mutual. "We need each other," he said. "All that the warehouseman has to give to the storer may be expressed in one word: service. The traffic men who are here can tell us our shortcomings; they can tell us the kind of service they want. We should tell them our reasons for our charges, rates, and so on."

A roll call of the traffic representatives showed the presence of John Simon, traffic manager of the Keystone Steel & Wire Co., Peoria, Ill., and A. A. Nelson, assistant sales manager of the Keystone; Herbert N. McEwen of St. Louis, vice-president of the Acme Transfer & Storage Co.; O. C. Bridges, representing the Meinrath Brokerage Co. of Kansas City and Chicago; E. S. Jacobs, representing Montgomery Ward & Co., and Thomas Gadsden, manager of Swift & Company's storage department and also identified with the traffic work.

Mr. Simon and Mr. McEwen are members of the traffic managers' advisory committee organized at the Cincinnati convention of the American Warehousemen's Association to work for the organization of a national association of manufacturers' representatives who handle warehouse accounts.

It was brought out that there was not a larger traffic representation at the Kansas City convention because of the country's car shortage situation. Frank E. Jones, traffic manager of the Furniture Manufacturers' Association of Grand Rapids, Mich., and chairman of the committee organized at Cincinnati, wrote that only this situation kept him away, and he asked that the thought be expressed to the Central Warehousemen's Club that:

"I am sure that by getting together on these questions that are constantly arising with reference to distribution and storage we can harmoniously work out the problems that have heretofore caused annoyance and dissatisfaction between the distributor and the traffic men."

Mr. Gadsden, who explained that he was present in the role of "customer and competitor both," said that as a traffic man he did not want to pay exorbitant storage rates. "We believe we can tell, by our experience in the storage business, whether we are being overcharged. We ask you to be careful in making rates, so as not to drive us out of public storage."

(Continued on page 17)

The text in the following columns represents a combination of the tentative rate guide prepared by a committee of the Central Warehousemen's Club and the final rate guide which the committee will disseminate among the members. Read the explanatory story on Pages 10 and 12.

In the second column (*Storage Reference—tentative*) are the letters selected provisionally to indicate in which classification each commodity should logically be placed in relation to what it should earn per hundred-weight, per cubic inch, per cubic foot and per square foot, as indicated in the "Storage Base Rate Table" published on Page 11.

In the third column are the numbers selected at the Kansas City convention to take the places of the letters in the second column. Where the word *appears*, this means that the original classification *I* was adopted as a base to work from, as told in the explanatory story beginning on Page 10. In the graduated steps above and below *I* or *zero* numbers will be substituted for letters as the classification symbols. Thus, in the guide as finally disseminated, the column headed *Storage Reference—tentative* will not appear; instead, will appear only the third column, headed *Storage Reference—final*, but of course with the word *final* eliminated. The completed guide therefore will contain three columns and not four.

In the fourth column, the modifications (indicated by light-face numbers) refer back to the "Storage Base Rate Table" on Page 11. In the final guide these modifications will remain unchanged.

COMMODITY	Storage Reference		Modifications	COMMODITY	Storage Reference		Modifications	COMMODITY	Storage Reference		Modifications
	(Tentative)	(Final)			(Tentative)	(Final)			(Tentative)	(Final)	
A				Baking Powder	J	1	14	Cabbage			
Acid				Barrels				(See "Produce")			
Barrels and Drums	M	4	15	Bale Ties	I	Zero		Calcium Chloride	K	2	14
Carboys	SS	Double 10	9-14	Bundles				Drum			
Cases	M	4	9	Banana Oil	M	4	14	Calks, Toe	K	2	4
Jacket Cans	M	4	9	Barrels				Boxes			
Advertising Matter	K	2	14	Barley, Pearl	I	Zero		Camphor	J	1	14
Albumen	SS	Double 10	1-3	Bags				Barrels			
Cases				Barrels of Mdse.	J	1	14	Candles	K	2	4
Alcohol, Methyl and De-				N. O. S., Dry				Box			
natured				Barrels of Mdse.	M	4	5-14	Candy (Pile upside down)	S	10	1-3-6-8
Barrels and Drums	M	4	14	N. O. S., Wet				Box			
Aluminum				Empty	I	Zero		Canisters, Empty	I	Zero	
Ingot	O	6	1	Barrel Heads	I	Zero		Carton			
Aluminum Ware				Bundle				Canned Goods in Tin			
Cases	K	2	1	Barrel Staves	I	Zero		Fruit, Soup, Vegetables	I	Zero	
Ammonia, Aqua	S	10	2-6	Bundle				Cartons and Cases			
Cases				Baskets	I	Zero		Fish and Meats	K	2	1-3
Ammonia, Anhydrous				Bath Tubs	K	2	14	Cartons and Cases	S	10	1-2-3-6
(Investigate Insurance				Batteries, Dry	J	1	14	Cartons and Cases			
hazard)				Barrel				Canvas	L	3	1-14
Cylinder	MM	Double 4	9-14	Battery Plates	K	2	1	Roll			
Antimony				Cases				Carbide, Calcium (Extra			
Barrels and Cases	M	4	1	Beans, Sacks	I	Zero		hazardous, subject to			
Arsenate of Lead				Bed Springs	M	4	14	Fire ordinance)			
(See Chemicals)				Beds				Case			
Anvils	I	Zero		Belt Dressing	S	10	1-4	Catsup	K	2	2-6
Apples				Bushel				Case			
Barrels and Boxes	M	4	6-14	Bicycles	K	2	14	Carrots (See Produce)			
Apple Pomace and Waste				Crated				Cement	I	Zero	
Bags	I	Zero	8-9	Blacking (See Polish)				Bag			
Box	I	Zero	8-9	Bluing, Dry	I	Zero		Cement Mixer			
Barrels	J	1	9-9-14	Box				Space and Labor			
Asbestos Pipe Covering				Bluing, Liquid	S	10	4-6	Carbon Tetrachloride	L	3	14
Crates	I	Zero		Box				Drums			
Automobiles				Bon Ami	I	Zero		Cartridges	L	3	1-4
New, stored for dealers,				Box				Cases			
1 1/4 cents per lineal				Boots and Shoes	S	10	1-3	Casein	L	3	10-11-12
foot per day.				Boxes or Cartons				Bags			
Automobiles				Books and Periodicals	Q	8	1-4-14	Cement Hardener	I	Zero	
Used, stored for individual				Bottles				Bags			
owners, 1 1/4 cents				Cases or Crates	I	Zero		Cement, Liquid	M	4	5-14
per lineal foot per day.				Bottled Goods				Barrels			
Automobile Tires				In Barrels, Cartons, Cases,				Cement, Roofing	J	1	14
Each	S	10	1-3-14	consisting of ex-				Barrels			
Automobile Trucks				tracts, fruit juices,				Cement, Rubber	M	4	4-9
7 1/2 cents per square foot				honey, jams, jellies,				Cases			
per month.				mineral water, olives,				Cereals	I	Zero	
Auto Tractors				olive oil, pickles, pea-				Bags and Cases			
7 1/2 cents per square foot				nut butter, syrup and				Kegs and Barrels	J	1	14
per month.				all kindred products...	S	10	1-2-3-6	Chalk	K	2	2
Axes				Catsup	K	2	2-6	Chairs			
Case	I	Zero		Cartons and Cases				Space and Labor			
Axe Handles				Chili Sauce	K	2	2-6	Chicory	I	Zero	
Cartons or Crates	I	Zero		Cartons and Cases	J	1	12	Case			
Asbestos				Brick Coloring				Chili Sauce	K	2	2-6
Blocks, Cement, Paper,				Space and Labor				Case			
Shingles, packed in				Broom Corn (Extra haz-				Chemicals, Dry	I	Zero	
bags, cases or rolls...	I	Zero		ardous)				Bags and Cases			
B				Bale	I	Zero		Kegs, Barrels and Drums	J	1	14
Baby Carriages				Buckwheat Flour				Casks	O	6	14
Crates	M	4	1	(See Flour)				Chemicals, Wet	K	2	4-5-9
Babbitt Metal				Burlap—In Bales				Cases	M	4	5-9-14
Bagging	K	2	1	(See Bagging)				Kegs, Barrels and Drums			
Bales				Butter Dishes	I	Zero		Chocolate	P	7	1-3
Bags, Burlap				Cartons				Cases			
Bales	K	2	14	Buttermilk (Liable to ex-				Cider			
Baking Powder				plode)				(See Bottled Goods and			
Boxes	I	Zero		Barrels	R	9	5-7-9-14-15	Canned Goods)			

The following rules and regulations are part of the rate guide which the Central Warehousemen's Club adopted at its Kansas City convention:

Rule 1. The handling charges scheduled herein cover the receiving of merchandise in good condition from wagons or cars at the warehouse, handling into the warehouse and making delivery to shipping platforms. These charges do not cover any additional labor required in weighing, sorting, inspecting, recording weights or gages, cooperage or delivery on to wagons or into cars. Handling charges will be billed with the first month's storage charge.

Rule 2. The rates of storage are per month or part thereof, dating from receipt of the first package, and cover from that date up to, but not including, same date of the following month, or at option of both parties, that storage be charged from first to first of each month, figuring all cars received up to and including 16th of month a full month rate, and after the 16th to end of month a half month charge. All charges are due and payable monthly in advance, and the warehouse may refuse delivery of goods until same are paid. When changes are made in charges, the new rates will apply on all goods received on or after the effective date, and upon the next monthly billing date upon all goods in storage on the effective date.

When goods in storage are transferred from the books of the warehouse from one party to another, a new contract is made and a new storage date established on the date of transfer. When goods in store are ordered to be loaded out by car, a reasonable time shall be given the warehouse to secure railroad equipment and inability of the warehouse to effect delivery before expiring storage dates shall not prevent assessing the storage charge for another month.

Rule 3. Unless otherwise provided for, all commodities are stored on month to month contracts, and reservation is made of the right to require the removal of any lot upon thirty days notice from the next storage date.

Rule 4. All goods are held by the warehouse company as warehouse men, and further are at owner's risk of loss or damage caused by fire, wind, water, sprinkler leakage, rats, mice, vermin, leakage, providential causes, or by enemies of the government, or mobs, or breakable goods not properly packed, or from any cause beyond the control of the warehouseman. The owner of the merchandise stored with the warehouseman must pay the full storage accrued on all goods damaged or destroyed by such causes.

Rule 5. The rates named herein are based upon a value of not to exceed \$5.00 per cubic foot, and warehouse company will not be liable for articles of greater value unless a special agreement to do so and a stipulated value of the articles are indorsed on the warehouse receipt issued by the warehouse company. On commodities of greater value an additional charge of one-tenth of one per cent of the value will be made.

Rule 6. When the volume of goods received or remaining in storage in one lot is such that the applied storage rate amounts to less than \$3.00 per month on each brand, mark or variety, there will be an increase of 50 per cent in the listed storage rate, but the increase will not be computed higher than \$3.00.

When this company is required to store merchandise in such a manner as to enable it to deliver packages by serial number, individual style number, or

what is commonly known as "Individual Package Delivery" the labor charge and storage rate will be doubled.

Rule 7. The minimum handling charge per lot will be twenty-five cents. The minimum storage charge per lot will be twenty-five cents per month or part. The minimum monthly charge to one account for storage and handling will be \$1.00. This charge will apply also to each account when one customer has several accounts, each requiring separate records and billings.

Handling rates listed herein permit one delivery without extra charge for each ton of goods received under one lot number. When the total number of deliveries exceeds the total number of tons received in the lot, an extra charge of twenty-five cents will be made for each excess delivery.

Rule 8. Extra labor will be furnished by the warehouse when possible and expedient, at double the wages of the men employed. Minimum charge one-half hour.

Rule 9. The patrons' own workmen will not be allowed to repack, label, overhaul, work on, or have access to, goods in storage unless accompanied by a regular warehouse employee, whose time will be charged for as per rule No. 8. The charge for extra space required will be one-half of one cent per square foot per day. Maximum rate 10 cents per square foot per month. Minimum charge fifty cents. A reasonable charge will be made for cleaning up or restoring space to its original condition.

Rule 10. The charges for weighing goods upon receipt or delivery will be on cents per hundred pounds on lots of over 10,000 pounds, and one and one-half cents per hundred pounds on lots

COMMODITY	Storage Reference		Modifications	COMMODITY	Storage Reference		Modifications	COMMODITY	Storage Reference		Modifications
	(Tentative)	(Final)			(Tentative)	(Final)			(Tentative)	(Final)	
Cider	M	4	5-6-12-14	Cornmeal	I	Zero		Dye (See Chemicals)			
Barrel				Bags and Cases	J	1	14	E			
Cinnamon (See Spices)				Cornmeal	L	3	1-14	Egg Cases (Empty)	I	Zero	
Clothes Pins	I	Zero		Barrels				Each			
Cartons	S	10	1-3-4	Cotton Duck	K	2	9-14	Egg Case Material	I	Zero	
Cigars	S	10	1-3-4	Cotton Linters	I	Zero		Bundle			
Cigarettes	I	Zero		(Fire hazard)				Engines, Gas			
Carton	S	10	1-3-4	Bale				Space and Labor			
Coal Chutes	I	Zero		Cotton Batting				Enamelware	K	2	14
Cocanut	K	2	1-4-6	Bales and Cases				Cases			
Case				Crackers (See Cereals)	M	4	6-14	Engines, Threshing			
Cocanut	L	3	1-4-14	Cranberries	K	2	2	Space and Labor			
Pails, Barrels	P	7	1-3	Barrels and Boxes				Envelopes	K	2	14
Cocoa	K	2	1	Box				Case			
Cases	K	2	1	Cream Separators				Extract			
Cocoa Beans	K	2	1	(See Separators)				(See Bottled Goods)			
Bags	L	3	1-14	Crisco				F			
Cocoa Butter	K	2	1	(See Lard Substitute)				Fanning Mills	I	Zero	
Bales and Cases	L	3	1-14	Crockery	K	2	1-2-14	Crates			
Barrels	N	5	5-14	Barrels and Crates	O	6	1-2-14	Fans, Electric	N	5	1-4-14
Cocoanuts, Husked	K	2	4-14	Crockery				Cases	I	Zero	
Bags				Hogsheds and Ricks				Fans, Palm Leaf	O	6	1-14
Coffee				Currents				Cases	K	2	4-14
Bags, Boxes				(See Dried Fruit)				Fireless Cookers	I	Zero	
Concrete Mixers				D				Feathers	K	2	4-14
Space and Labor				Dates (See Dried Fruit)				Bags and Bales			
Conduit, Iron and Flex-				Dried Fruit	I	Zero		Fireless Cookers	K	2	4-14
ible				Box	K	2	1-4-14	Cases			
Space and Labor				Bags and Barrels	I	Zero		Fish (See Canned Goods)	I	Zero	
Cooking Oil (See Oil)				Drums, Empty	R	9	1-3-14	Fish, Dried	Q	8	14
Copper Wire	K	2	1-14	Dry Goods				Boxes			
Coils	S	10	1-14	Case				Bundles			
Corks, Crown								Fish, Salted	M	4	5-10-14
Barrels								Barrels			

of less than 10,000 pounds. Exceptions: Tea, three cents per package; wool, hops, broom corn, cotton linters, waste, tobacco in bales and all goods in barrels, five cents per package. Minimum charge fifteen cents. When goods in store are taken down and repiled for weighing, or other convenience of the customer, the listed in and out labor charge will apply, except that the charge for weighing and repiling tea will be four cents per package.

Rule 11. A tonnage charge equal to twenty-five per cent of the listed in and out handling charge, with a minimum of \$5.00 per car will be made for loading out cars to cover use of switch track, and extra labor required in placing, loading and billing of car. A reasonable charge will also be made for any dunnage used. When a checker is not furnished by the owner or railroad in loading out cars, the warehouse shall not be held responsible for load and count.

Rule 12. A charge of one cent per package, minimum charge of ten cents per shipment, will be made for marking goods for shipment and furnishing bills of lading for same.

Rule 13. Taking and reporting marked weights and numbers for purposes other than warehouse identification will be charged for at the rate of one cent per package, minimum charge ten cents.

Rule 14. When a delivery is authorized to be made, and said delivery cannot be effected by reason of the inability or refusal of consignee to accept the goods a similar charge will be made for the goods to the warehouse as is applied for the out delivery. The usual delivery charge will be made, should the warehouseman be authorized to make a second attempt to deliver the consignment.

Rule 15. A coopeage charge of ten

cents per bag, or box, and twenty-five cents per slack barrel will be made for repairing of ordinary damage to original packages received by this company. For repairing extraordinary damage to original packages, a time and material charge will be made. In addition a handling charge of five cents per article will be assessed on all packages received in a damaged condition.

Rule 16. Postage and addressed envelopes shall be furnished by customers requiring immediate notification of shipments or deliveries. The cost of all revenue stamps required on shipping bills and warehouse documents will be charged to the customer.

Rule 17. A charge of ten cents per expense bill will be made to cover the expense of clerical work necessary in checking and handling express and railway companies' paid or prepaid expense bills.

Rule 18. A charge of fifty cents will be made for each negotiable receipt issued. There will be no charge for memorandum and non-negotiable receipts.

Rule 19. On perishable goods requiring reconditioning or special handling, the charge for storage shall be made on entire lot until the lot is removed from storage.

Rule 20. A charge will be made for claims handled by the warehouse company.

Rule 21. On any shipment or delivery made by this company by C. O. D. express, parcel post C. O. D., or parcel post insured, or by freight billed to shippers' order, or by freight on which advance charges are to be collected, or direct to consignee when collection of money for customer is required, a fee of ten cents per shipment will be made to cover extra clerical work, in addition to which a collection charge of one per cent of the amount involved with a minimum charge of twenty-five cents per item will be made in all cases when money is collected and remitted.

Rule 22. This company will not be responsible for loss or damage occasioned by misunderstanding of instructions telephoned to it.

Rule 23. Cars consigned to warehouse without previous arrangement will be subject to any accruing demurrage charges.

Rule 24. No claim for loss or damage will be entertained by warehouse company after the expiration of thirty days after the date the merchandise is delivered.

Rule 25. Perishable goods or others susceptible to damage through changes of temperature or other causes incidental to ordinary storage, will be accepted by this company only at owner's risk.

Rule 26. Distribution means the checking out and delivery at car or warehouse door the entire contents of car, none of which is intended for storage. Said goods to be held for delivery not later than the next business day after the car is unloaded. Previous to the unloading, notice shall be given stating the number of packages wanted, brands, sizes, etc., and to whom they are to be delivered. Notice will be given when goods are ready for delivery and any goods remaining after the time specified will be charged the full handling and storage rates. When a portion of the contents of a car is immediately distributed, the full handling and storage rates will apply.

Rule 27. Safes and heavy machinery will be handled under special agreement, owing to the excess cost of handling.

Rule 28. A minimum charge of twenty-five cents will be made for each express shipment.

Rule 29. No insurance will be placed on goods in storage without the written direction of the owners or his or its agents.

All taxes to be paid by customers on their own goods.

COMMODITY	Storage Reference		Modifications	COMMODITY	Storage Reference		Modifications	COMMODITY	Storage Reference		Modifications
	(Tentative)	(Final)			(Tentative)	(Final)			(Tentative)	(Final)	
Flour	I	Zero		Glycerine	S	10	1-3-5-14	Hats, Straw and Panama	Q	8	1-4
Bags	J	1	14	Cans	M	4	1-14	Cases	M	4	5-12
Flour, Pancake	I	Zero		Drums	J	1	14	Honey, in Tins	S	10	2-5-12
Carton	K	2	8	Glucose	I	Zero		Case	I	Zero	
Flour, Buckwheat	S	10	1-3-5-10	Glue	K	2	14	Honey, in Comb and	O	6	1-10-14
Bags and Cases	I	Zero		Bags and Cases	L	3	14	Glass	S	10	1-14
Fly Paper	I	Zero		Barrel	I	Zero		Case	I	Zero	
Box	S	10	1-3-5-10	Go-Carts	I	Zero		Horse Shoes	I	Zero	
Formaldehyde	S	10	1-2	Crates	K	2	14	Boxes and Kegs	O	6	1-10-14
Food, Infants	I	Zero		Granite	M	4	6-14	Horse Shoe Nails	K	2	1
Cases	I	Zero		Sack	M	4	6-14	Case	I	Zero	
Foundry Facing	I	Zero		Granite Ware	I	Zero		Hides and Skins	I	Zero	
Fruit Jars	K	2	8	Case	I	Zero		Green	O	6	1-10-14
Carton	I	Zero		Grapes	M	4	6-14	Dry	S	10	1-14
Fruit Jar Caps	I	Zero		Keg	M	4	6-14	Hops	K	2	1
Furnaces	I	Zero		Grape Fruit	M	4	6-14	Bales	I	Zero	
Space and Labor	I	Zero		Box	I	Zero					
Furniture	I	Zero		Grape Juice	M	4	6-14				
Space and Labor	I	Zero		(See Bottled Goods)	I	Zero					
Fuse	I	Zero		Graphanolas	I	Zero					
Cases	S	10	1-4	(See Phonographs)	I	Zero					
				Grease	M	4	5-12-14				
G				Barrel	L	3	5-12				
Garbage Cans	I	Zero		Box	K	2	1-4				
Each	I	Zero		Gum, Arabic	I	Zero					
Gelatine, Edible	S	10	1-3-4	Bags and Boxes	I	Zero					
Cases	S	10	1-3-4-14	Gypsum	I	Zero					
Barrels, Casks, Drums	I	Zero		Bags	I	Zero					
Gilsonite	I	Zero		Gypsum Blocks	I	Zero					
Bags	I	Zero									
Ginger Ale	I	Zero		H							
(See Bottled Goods)	I	Zero		Hair	I	Zero					
Glassware	K	2	2-14	Bale	I	Zero					
Barrel	K	2	2-14	Hemp (Hazardous)	O	6	9				
				Baled, Ton	O	6	9				

COMMODITY	Storage Reference		Modifica-tions	COMMODITY	Storage Reference		Modifica-tions	COMMODITY	Storage Reference		Modifica-tions
	(Tentative)	(Final)			(Tentative)	(Final)			(Tentative)	(Final)	
J				Milletstuffs (including Bran, Shorts, Middlings, Red Dog, Oil Meal, Grits, etc.)	I	Zero		Paper, Cardboard	K	2	14
Jams and Jelly (See Bottled Goods)				Ton				Bundles			
Japanese Goods	K	2	1-2-14	Mince Meat, Dry	I	Zero		Paper, Print	K	2	14
Bale	K	2	1-2-14	Case				Rolls			
Jello (See Gelatine)	I	Zero		Mince Meat, Wet, in Glass	S	10	1-2	Paper, Cartons, Cups, Candy Boxes, etc.	I	Zero	
Jugs				Case				Case			
Space and Labor				Mince Meat, Wet	M	4	12-14	Paper, Strawboard	K	2	14
K				Barrel, Keg, Kit				Bundles			
Kapok	K	2	14	Mineral and Aerated Water (See Bottled Goods)				Paper, Roofing, Crepe and Corrugated, Building	I	Zero	
Bale	I	Zero		Molasses	M	4	5-12-14-15	Roll			
Kitchen Cabinets				Case and Barrel	K	2	1-14	Paper, Wrapping	K	2	14
Kraut, in Cases (See Canned Goods)				Motor Cycles	K	2	1-14	Roll, Bundle			
Kraut				Motor Cycle Side Cars	K	2	1-14	Paper, Toilet, Towels, Napkins	I	Zero	
Barrels	M	4	5-12-14	Mushrooms, Canned	S	10	1-3-4	Case			
L				Mushrooms, Dry	S	10	1-3-4	Paper, Wall	K	2	14
Lacquer	M	4	5-12-14	Case				Bundle			
Drums				Mustard, in Glass	K	2	2-6	Patent Medicine (See Medicine)			
Labels and Posters	S	10	1-4-14	N				Paris Green (See Chemicals, Dry)			
Lamp Black	J	1	12-14	Nails	I	Zero		Peas, Dried (See Beans)			
Barrel	I	Zero		Nuts, Almonds, in the Shell	M	4	1-3-14	Parasnis (See Produce)			
Case				Bag				Pepper (See Spices)			
Lamp Chimneys	I	Zero		Nuts, Brazil, in the Shell	M	4	1-3-14	Pickles, in Cases (See Bottled Goods)			
Barrel	J	1	2-14	Bag				Pickles	M	4	5-12-14
Lantern Globes	I	Zero		Nuts, Filberts, in the Shell	M	4	1-3-14	Barrel	K	2	9
Case				Bag				Pitch (Fire hazard)			
Lard Substitute	M	4	5-12-14	Nuts, Peanuts, in the Shell	M	4	1-3-14	Plumbing Supplies	O	6	1-3-14
Barrel and Tierce	M	4	5-12-14	Bag				Space and Labor			
Keg				Nuts, Pecans, in the Shell	I	Zero		Phonographs			
Lard Substitute	I	Zero		Bag				Pianos	Q	8	1-14
Crates and Cases	M	4	5-12-14	Nuts, Walnuts, in the Shell	M	4	1-3-14	Boxed			
Pail and Tub				Bag				Popcorn, Shelled	I	Zero	
Lath Metal				Nuts, Almonds, Shelled	S	10	1-3	Bag			
Space and Labor				Bag				Popcorn, not Shelled	K	2	14
Laurel Leaves (See Spices)				Nuts, Brazil, Shelled	S	10	1-3	Bag			
Lavatory Supplies (See Plumbing Supplies)				Bag				Potatoes (See Produce)			
Lawn Mowers	K	2	4-14	Nuts, Filberts, Shelled	S	10	1-3	Potash	I	Zero	
Case	I	Zero		Bag				Preserves, in Cases (See Bottled Goods and Canned Goods)			
Lead, White or Red	K	2	1-3	Nuts, Peanuts, Shelled	I	Zero		Preserves	M	4	5-12-14
Lead, Pig and Bar				Bag				Poison (See Chemicals)			
Lead, Sublimed (See Chemicals, Dry)				Nuts, Pecans, Shelled	S	10	1-3	Produce			
Lemons	M	4	6-14	Bag				(Cabbage, Carrots, Onions, Parsnips, Potatoes, etc.)	S	10	6-14
Box				Nuts, Walnuts, Shelled	S	10	1-3	Pulp Board (See Wall Board)			
Lemonade Straws	I	Zero		Bag				Polish, all Kinds, in Tin	M	4	4-14
Box				Nut Meats	S	10	1-3	Case			
Leather (Rolls, Bundles or Cases)	S	10	1-3-14	Nutmeg (See Spices)				Polish, all Kinds, in Glass	S	10	4-6-14
Box				O				Case			
Lentils	I	Zero		Oakum (Fire Hazard)	I	Zero		R			
Bag				Bundle				Radiators and Boilers			
Linseed Oil (See Oil)				Oil—Cooking, Linseed, Lubricating, etc.	M	4	5-12-14	Space and Labor			
Linoleum				Barrel				Rice	I	Zero	
Space and Labor				Oil—Cooking, Lubricating, etc., in Tins	L	3	5-12	Bag	I	Zero	
Lye	I	Zero		Oil, in Glass	S	10	1-2-3-6	Refrigerators			
Box				Case				Roofing (See Paper)			
M				Oil Meal (See Mill Stuffs)				Roofing Metal	I	Zero	
Macaroni	I	Zero		Malodorous				Roofing, Slate	I	Zero	
Mace (See Spices)				Oil, Salad (See Oil)				Rock Salt	I	Zero	
Magnesia (See Chemicals)				Olives, in Glass				Ton			
Malt Extract	M	4	5-14	(See Bottled Goods)				Roof Cement (See Paint)			
Barrel	S	10	1-2-3-6	Olives, in Tins (See Canned Goods)				Rope			
Case				Olives	R	9	5-12-14	Space and Labor			
Malting Milk (See Milk)				Onions (See Produce)				Rutabagas (See Produce)			
Maple Sugar	K	2	1-3	Olive Oil, in Cases (See Bottled Goods)				Rye Flour (See Flour)			
Box	M	4	1-3-14	Olive Oil, in Barrels (See Oil)				Rubber, Footwear	O	6	1-3
Bale, Pail				Oranges	M	4	6-14	Case	K	2	9-14
Maple Syrup (See Syrup)				Oyster Shells	I	Zero		Rugs, Grass and Straw	M	4	1
Mapleline (See Syrup)				P				Rubber, Crude			
Marble Dust and Chips (See Granite)				Pails, Nested	I	Zero		S			
Marshmallow Creams	S	10	2-3-14	Paint				Sad Irons	I	Zero	
Barrels, Cases and Pails				Case Tins				Case			
Matches, Safety	I	Zero		Paint, Dry	I	Zero		Salmon (See Fish, Salted)			
Case				Barrel				Salmon, in Cases (See Canned Goods)			
Matches, Domestic	K	2	9	Paint, Liquid	J	1	14	Salt	I	Zero	
Case				Barrel				Case	J	1	14
Matting, China and Jap	K	2	9-14	Paper Bags	M	4	5-12-14	Salad Dressing (See Bottled Goods)			
Roll				Bundles				Saleratus	I	Zero	
Matting, Rugs	K	2	9-14	Paper, Blotting	K	2	14	Case			
Roll	S	10	1-2-3-6-7-14	Bundles, Case	K	2	14	Sandpaper			
Medicine, Patent				Paper Boxes, K. D.	K	2	14	Space and Labor			
Metal Polish (See Polish)				Bundles	K	2	14	Sauerkraut (See Kraut)			
Middlings (See Mill Stuffs)				Paper, Book and Print	K	2	14	Sardines, in Cases (See Canned Goods)			
Milk, Condensed and Evaporated	I	Zero		Bundles	M	4	14	Scales			
Case				Crate and Case				Space and Labor			
Barrel	M	4	5-14					Scrap Brass			
Milk, Dry Powdered	J	1	14					Barrel	J	1	14
Case											
Milk, Malted, in Glass	S	10	1-2-3								
Case and Barrel											
Millinery	K	2	1-4-14								
Case											

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COMMODITY	Storage Reference		Modifications
	(Tentative)	(Final)	
Seed, all Kinds	K	2	1-8
Bags	I	Zero	
Separators, Cream	I	Zero	
Sewing Machines	I	Zero	
Shellac (See Paint)			
Silicate of Soda			
(See Chemicals, Wet)			
Shingle, Composition	I	Zero	
Bundle			
Shingles, Wood	I	Zero	
Bundle			
Show Cases			
Space and Labor	SS	Double	1-3-14
Silk			
Soap and Soap Products	I	Zero	
Case			
Soap and Soap Products,	J	1	14
Dry			
Barrel			
Soap and Soap Products,			
in Glass			
(See Bottled Goods)			
Soap, Soft and Liquid	M	4	5-10-12-14
Pails, Barrels			
Soda and Soda Ash	I	Zero	
Case, Carton	J	1	14
Keg, Barrel			
Soda Crystals	J	1	14
Barrel			
Soda Straw	I	Zero	
Solder			
Cwt	M	4	1
Spaghetti			
Box	I	Zero	
Spices, Prepared	K	2	1-4
Cases			
Spices, Raw	L	3	1-14
Bag, Case			
Staples	I	Zero	
Keg			
Starch	I	Zero	
Case	J	1	11-14
Bag	J	1	14
Barrel			
Stearine	I	Zero	
Case			
Stove Boards			
Space and Labor			
Stoves, Cooking and			
Heating			
Stoves, Oil, Gas or Elec-			
tric			
Straw Matting			
(See Matting)			
Straw Braid	I	Zero	
Stoneware (See Crockery)			
Sugar, Granulated	I	Zero	
100-lb. Bags	J	1	14
Barrel			
Sugar, Cube	J	1	14
Barrel			
Sugar	I	Zero	
Case	J	1	14
Keg			
Sugar, Raw	K	2	14
Bag			
Sugar Feed	I	Zero	
Bag			
Sweeping Compound	M	4	9-14
Barrel			
Syrup, in Tin	I	Zero	
Case			
Syrup, in Glass	S	10	1-2-3-6
Case			
Syrup	M	4	5-12-14
Keg, Barrel, Jacket			

(Continued on page 18)

LABOR CHARGE TABLE

Column No. 1 Pounds per Cubic Foot	Column No. 2 Pounds per Cubic Inch	Column No. 3 Rate per Ton
0 lbs. to 5 lbs.	.00000 to .00289	\$3.80
5 lbs. to 10 lbs.	.00289 to .00578	2.50
10 lbs. to 18 lbs.	.00578 to .01041	2.00
18 lbs. to 25 lbs.	.01041 to .01446	1.90
25 lbs. to 35 lbs.	.01446 to .02025	1.70
35 lbs. to 45 lbs.	.02025 to .02604	1.40
45 lbs. to 55 lbs.	.02604 to .03182	1.20
55 lbs. up	.03182 up	1.00

No. 1.—The above "Labor Charge" Table shows the method by which the labor charges, as given in the column "Labor Per Ton" were determined. It will also serve as a "Ready Reckoner" for computing labor charges on commodities not listed herein.

No. 2.—Labor charges have been determined according to relative bulk and weight. For instance, packages weighing up to 5 pounds per cubic foot are handled on a basis of \$3.80 per ton. Packages weighing from 5 to 10 pounds per cubic foot are handled on a basis of \$2.50 per ton, and so on until weight exceeds 55 pounds per cubic foot. On all merchandise weighing 55 pounds or more per cubic foot, the handling charge is \$1.00 per ton.

No. 3.—Column No. 2 in the above Table, is provided for easy reckoning. In the storage computations, the Warehouseman has already arrived at the number of cubic inches in the package to be rated, and also its weight. To use the above Table, the weight should be divided by the number of cubic inches in the package. This will give the weight per cubic inch in decimals similar to those shown in Column No. 2 of the Table. If the resultant decimal is less than .00289, the handling charge will be at the rate of \$3.80 per ton; if the decimal is between .00289 and .00578, the rate will be \$2.50 per ton; or, if the decimal is between .01446 and .02025, the rate will be \$1.70 per ton; if, in any instance, the decimal is over .03182, the rate will be \$1.00 per ton.

TRAFFIC MANAGERS DISCUSS NATIONAL ASSOCIATION

(Continued from page 12)

Mr. Jacobs confined his talk to the remark that "our relations with warehousemen have been satisfactory," which elicited shouts of "Louder!"

Mr. Simon, declaring this was his second opportunity in two months to attend a warehousemen's convention, said: "I came here to learn how you do business, so that I can co-operate. I visited Cincinnati and have come to Kansas City so I could get the warehousemen's side of it. At Cincinnati I learned many simple little things that I hadn't seen before from my side of the desk, and I went back home and wrote to the warehousemen we do business with that I had learned their viewpoints. It is time well spent for a traffic man to attend a warehousemen's convention. I do not believe that most traffic men realize the value of getting together with you men to iron out grievances."

Discussing the proposed national association of traffic men who deal with warehouses, Mr. Simon said: "I believe that

an organization of that kind will be a fine thing. Organization is the most wonderful thing there is. You men should write to all the traffic managers you know to join us."

Mr. Bridges and Mr. McEwen spoke briefly on their relations with warehousemen, the former emphasizing "speed and accuracy" as the fundamentals in which he was most interested.

Mr. Woodson read a letter received by a Kansas City warehouseman from an entirely different type of traffic manager, who wrote: "We are too busy attending to our own business to find time to pay any attention to any rules and regulations you may form."

Mr. Woodson added: "It should be the duty of the warehousemen to see that they give such good service that the shipper is perfectly satisfied. Each of us should try to make the traffic manager think that there is no other warehouse in the city. When we get to that point, and when we give that service, you will find that the

(Continued on page 18)

Central Warehousemen's Club system of standardizing sizes
and weights of commonly-handled canned foods

STANDARD SIZES AND GROSS WEIGHTS OF
CANNED FOODS IN CASES AND CARTONS

DESCRIPTION	Lbs.	MEASUREMENTS	Cubic Inches
Case of No. 8 and 10 Size Cans			
Fruits—Vegetables and Tomatoes, 12 cans.....	98	One dozen to case	
Fruits—Vegetables and Tomatoes, 6 cans.....	52	14½x13½x20½	4025
Honey, 12 cans.....	160		
Tomato Puree, 12 cans.....	95		
Catsup—Screw top, 12 cans.....	100		
Catsup—Plain top, 12 cans.....	96	Half dozen to case	
Pineapple in Syrup, 6 cans.....	52	7½x13½x20½	2116
Pineapple in Juice, 6 cans.....	50		
Case of No. 3 Size Cans			
Fruits, 24 cans.....	70		
Tomatoes 24 cans.....	67		
Asparagus—Square, 24 cans.....	90	10½x13½x19	2736
Tomato Puree, 24 cans.....	66		
Case of No. 2½ Size Cans			
Fruits, 24 cans.....	62	All same	
Tomatoes and Vegetables, 24 cans.....	60	10½x13½x18½	2537
Pineapple, 24 cans.....	60		
Asparagus—Square, 24 cans.....	64		
Olives, 24 cans.....	62		
Stewed Prunes, 24 cans.....	64		
Case of No. 2 Size Cans			
Sanitary Berries, 24 cans.....	46		
Vegetables, 24 cans.....	42	10½x11½x15½	1795
Pineapple Talls, 24 cans.....	44		
Pineapple Flats, 24 cans.....	41		
Jams, 24 cans.....	46		
Jellies, 24 cans.....	57	7½x13 x18½	1770
Baked Beans, 24 cans.....	45		
Salmon, 24 cans.....	48		
Case No. 1 Size Cans			
Fruits—Talls, 48 cans.....	68		
Fruits—Flats, 48 cans.....	66		
Pineapple—Talls, 48 cans.....	55	10½x13 x20	2665
Pineapple—Squats, 48 cans.....	44		
Asparagus—Square Tips, 24 cans.....	36	8½x11½x14½	1384
Asparagus—Round Talls, 48 cans.....	66		
Peas, 48 cans.....	70		
Salmon Talls, 48 cans.....	70	10½x13 x20	2665
Salmon Flats, 48 cans.....	68		
Salmon Oval, 48 cans.....	70		
Case of Picnic Size			
Fruits, 48 cans.....	49		
Pineapple, 48 cans.....	53		
Honey, 48 cans.....	60	All same	
Jams, 48 cans.....	58	8½x12 x18½	1942
Jellies, 48 cans.....	56		
Baked Beans, 48 cans.....	50		
Case of Glass Goods			
32-ounce Vac Fruits, 12 jars.....	52	8½x14½x18½	2303
26-ounce Vac Fruits, 12 jars.....	46	8½x13 x17½	1925
16-ounce Preserves, Jams and Jellies, 24 jars.....	50	6½x13½x20½	1845
Pint Catsup, 24 bottles.....	60	11½x13½x20½	3078
Half-pint Catsup, 24 bottles.....	34		
Quart Catsup, 12 bottles.....	42	9½x11½x17½	1855

(Continued from page 17)

Traffic Managers Discuss National Association

traffic manager will be willing to pay for that service."

Opinion was expressed that an endeavor should be made by all the members to assure a larger traffic representation at the next convention—not the traffic managers alone, but the shippers' employees who handle warehouse accounts.

New Officers

THE following officers were elected for the coming year:
President: W. L. Hinds, president of the Merchants' Transfer & Storage Co., Des Moines, Iowa.
Vice-President: Sidney A. Smith, manager of the Currier-Lee Warehouse Co., Chicago.
Secretary-Treasurer: George Hamley, president of the Colonial Warehouse Co., Minneapolis.
Added to Executive Committee: L. T. Crutcher, president and treasurer of the L. T. Crutcher Warehouse Co., Kansas City, Mo.; George Laier, Omaha, Neb.; Ray Wilcox, Sioux City, Iowa.

New Members

New members were elected as follows:
 Rathman Van & Storage Co., Sioux City, Iowa; Continental Warehouse Co., Chicago; Tripp Warehouse Co., Indianapolis; Dallas Storage & Warehouse Co., Dallas, Tex.; City Storage & Transfer House, Sioux Falls, S. D.; Schichs Express & Baggage Co., Davenport, Iowa; Nashville Warehouse Co., Peoria, Ill.; St. Paul Terminal Warehouse Co., St. Paul, Minn.

(More Convention News on page 52B)

(Continued from page 17)

COMMODITY	Storage Reference		Modifications
	(Tentative)	(Final)	
T			
Talking Machines (See Phonographs)			
Tanglefoot, Tree			
Pail, Crate	N	5	12-14
Talcum Powder			
Bag	I	Zero	
Tallow			
Barrel	M	4	5-12-14
Tapioca			
Box	I	Zero	
Bag	I	Zero	
Tea	M	4	1-4-14
Tin			
Pig	M	4	1
Tin Plate			
Crate	I	Zero	
Tires, Auto	S	10	1-3-14
Tomato Paste			
Keg	M	4	5-12-14
Tomato Pulp Cans			
Crated	K	2	5-12
Not Crated	O	6	5-12-14
Tomato Pulp			
Barrel	M	4	5-12-14
Toys			
Case	I	Zero	
Traps, Rat			
Crate	I	Zero	
Traps, Animal			
Barrel	J	1	14
Trunks	I	Zero	
Twine, Binder			
Bale	I	Zero	
Twine			
Space and Labor			
Typewriters	S	10	1-4
V			
Vacuum Cleaners	K	2	1-14
Varnish (See Paint)			
Vinegar			
Barrel	M	4	5-12-14
Case	S	10	2-6-14
W			
Wall Board			
Space and Labor			
Washing Machines	K	2	1-14
Washboards			
Crate	I	Zero	
Waste Cotton (Fire hazard)			
Bale	K	2	9-14
Water Meters			
Space and Labor			
Wax Paraffine			
Bag	O	6	1-14
Barrel	M	4	1-14
Wire, Barb			
Spool	I	Zero	
Wire, Chicken	I	Zero	
Whiting			
Bag	J	1	11-14
Barrel	J	1	14
Witch Hazel			
Can	I	Zero	
Witch Hazel, in Glass			
Case	S	10	1-2-6-14
Witch Hazel			
Barrel	M	4	5-12-14
Wool			
Bag	K	2	1-14
Wringers			
Case	I	Zero	
Y			
Yarn			
Bale and Case	P	7	1-4-14

Campaign to Eliminate WAREHOUSE FIRE HAZARDS

Begun by the National Board of Fire Underwriters

(Editorial Note.—This is the first of a series of articles telling how fire hazards in warehouses are to be removed through the organized efforts of the National Board of Fire Underwriters. The second article will appear in the March issue.)

A NATIONAL campaign to eliminate fire hazards and reduce insurance rates in all types of warehouses has been begun by the conservation officials of the National Board of Fire Underwriters.

Inspectors representing insurance companies are being organized in each of the forty-eight States. The owner of every storage plant in the country will be requested to fill in a questionnaire to be presented to him by one of these inspectors.

When this first survey has been completed, perhaps a year from now, IT WILL BE KNOWN FOR THE FIRST TIME HOW MANY WAREHOUSES THERE ARE IN THE UNITED STATES. This is information which the Government did not have available when America entered the world war. Further surveys, to be made in the years to come, through the work of the National Board of Underwriters, will disclose warehouse statistics in such minute detail as to make it unnecessary for the Government to include the warehouse industry in its decennial census inquiries. If and when the United States engages in another war, the National Board of Fire Underwriters will be in a position to let the Government know at once the extent and location of the nation's storage facilities.

State organizations of insurance company inspectors were formed during January in Maine, New

Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Western Pennsylvania, North Carolina, South Carolina and Georgia. The Florida, Alabama, Mississippi, Arkansas and Louisiana units were scheduled for organization during the first week of February. Eastern Pennsylvania will be organized on Feb. 16.

In the latter part of 1919, State organizations were formed in Ohio, Illinois, Wisconsin, Kansas, Delaware, Indiana, Michigan, Kentucky, Oklahoma, Iowa, Minnesota, Wyoming, Maryland, West Virginia, Tennessee, North Dakota, South Dakota and the District of Columbia.

This leaves fourteen more States as the fields for the further organization work. Beginning with Texas and California, the activity will be continued during March and April; by the first of May the work should be completed.

"NINETY-SEVEN PER CENT OF ALL BUSINESS IN THE UNITED STATES IS CARRIED ON ON CREDIT. CREDIT CANNOT EXIST WITHOUT ADEQUATE INSURANCE. INSURANCE DEPENDS UPON PROPER PROTECTION OF PROPERTY."

It is upon this theory, expressed by T. Alfred Fleming, supervisor of the conservation depart-

Every warehouseman in the country will be asked to record the following information on an Inspection Report to be presented to him by the Conservation and Fire Protection Association of the National Board of Fire Underwriters:

Location of warehouse	Lighting
Name of occupant	Heating
Kind of business carried on	Stovepipes and chimneys
Name of owner	Cleanliness. General condition — waste cans, lockers, smoking, crowded condition, overtime or continuous operation
Address of owner	Special hazards
Name and address of person to whom local or State fire officials would send orders applying to building and to occupancy	Protection (a) emergency — guards, watchmen; (b) fire appliances — extinguishers, pails, standpipes, fire alarm, sprinklers
Whether any property has burned while under charge of operator or owner; if "yes," a report thereon	Public protection. Fire department; distance; hydrants available
General construction of warehouse — fireproof, brick, frame or other well-defined type. Roof. Floors. Floor openings — cut-offs	Hazardous conditions liable to cause fire
Exposures	Conditions favoring spread of fire
Power	Deficient protection

Based upon the information in these Inspection Reports as completed, recommendations regarding fire hazards will be made by the inspectors to the conservation officers of the National Board of Fire Underwriters.

ment of the National Board of Fire Underwriters, that the campaign to eliminate warehouse fire hazards is based.

"NOTHING IS MORE IMPORTANT IN CONNECTION WITH THE PRESENT HIGH COST OF LIVING THAN TO PROTECT FROM FIRE THOSE

BUILDINGS WHICH HOUSE FOODSTUFFS AND OTHER COMMODITIES WHICH ARE THE NECESSITIES OF LIFE," to quote further from Mr. Fleming.

Eventually, all industries are to be listed for inspection; warehouses were selected first, because in them are stored goods the destruction of which by fire or from other causes would tend to maintain a higher level of prices.

The work of organization, State by State, is being done under the direct supervision of Mr. Fleming, who is attending the get-together meetings of the insurance company inspectors in all parts of the country.

At these meetings the inspectors are handed the questionnaires. Each receives also another paper, which is in effect an order to be handed to a warehouseman at whose plants any fire hazards may be discovered. When the inspectors set forth on their errands of inquiry, each possesses a list of warehouses of a given type. An inspector familiar with the writing of insurance on tobacco warehouses will confine his investigational operations to storage plants of that character. Similarly, the many inspectors will be assigned to visit warehouses which store exclusively cotton, grain and other commodities. Other inspectors will inquire at warehouses engaged in storing merchandise or household goods, and others will go to cold storage plants.

At every warehouse the visiting inspector will pay particular attention to fire hazards, if any exist. Expert counsel will be volunteered as to necessary remedies. With each warehouseman whose plant has fire hazards will be left an order blank which the warehouseman will be asked to fill in, after he has carried out the reforms suggested, and return to the Conservation and Fire Prevention Association of his particular State—"Conservation and Fire Prevention Association" being the name by which each State organization of inspectors is to be known. Before each inspector leaves the warehouse he is expected to have made certain that the warehouseman has given all the information necessary to fill in the questionnaire.

The National Board of Underwriters considers this campaign the most constructive and important

work it has ever undertaken. While it is in progress, its conservation department, with Mr. Fleming in charge, at 76 William Street, New York City, will be at the call of warehousemen who desire information pertaining to the eliminating of fire menace at their plants.

The support of all merchandise, household goods and cold storage warehousemen's associations in the United States is invited by Mr. Fleming. Upon request from the officers of these organizations, Mr. Fleming is prepared to assign speakers familiar with the progress of the campaign, to visit association meetings, to explain what is being undertaken. The conservation officials solicit the support of the American Warehousemen's Association, the American Chain of Warehouses, the new National Furniture Warehousemen's Association and other organizations, whose officers are asked to communicate with Mr. Fleming.

These are the general objects of the Conservation and Fire Prevention Association of the National Board of Fire Underwriters:

(1) To promote the science and improve the methods for the conservation of property as a national duty and a public service and to obtain the fullest measure of co-operation from all people to that end.

(2) To obtain and circulate all information relating to the subjects of fire protection and fire prevention.

(3) The ascertainment of the condition of premises for the purpose of safeguarding of life and avoiding the unnecessary destruction of property.

(4) The investigation of local laws and ordinances pertaining to fire fighting facilities, water works, building construction and repair, nuisances, care of explosives, volatile liquids and chemicals, and all such other laws and ordinances as relate to the betterment of conditions, with the end in view of securing the adoption of the most rigid requirements in respect for such subjects.

(5) All other subjects, not directly relating to the purposes set forth above, are not among the objects of this Association, and therefore are not within the scope of this Association.

The interpretation to be placed on No. 5 is that the insurance companies' inspectors who are engaged in making the national survey of warehouses will be forbidden to sell insurance to the warehouse owners with whom they confer.

THE origin of this fight against warehouse fire hazards is of general interest. When the United States entered the world war, W. E. Mallalieu, general manager of the National Board of Fire Underwriters, became convinced that in the records of the Board was information which would be invaluable to the Government. He volunteered to turn all these records over to Washington officials, and from them was compiled a survey of industrial plants and other buildings available for manufacturing war supplies, and a survey also of buildings adaptable for storing products for Army and Navy purposes. This searching of records and the preparation of surveys occupied one week; thereafter the Government had a comprehension of the country's storage facilities.

The Board's services to the Government did not terminate at this point. Washington was offered the free use of the time and talent of 5,000 inspectors employed by all insurance companies, and these men were sent to all the listed industrial and storage plants on a mission to bring about better wartime protection from fire and other dangers.

These dangers were not alone physical ones. There were human menaces—alien enemies lurking in the vicinity of warehouses—men who were ready to apply

Risks Scheduled for Inspection

Grain Elevators
 Flour Mills
 Cereal Mills
 Flour Storage
 Malt Houses
 Wholesale Groceries
 Tea, Coffee, Sugar and Tobacco Storage
 General Storage, Cold Storage and Commission
 General, Railroad, Freight, Seed and Fertilizer Warehouses
 Creameries, Cheese Factories, Canning Factories
 Packing Plants, Meat Storage Houses
 Cotton and Wool Manufacturing
 Leather

the torch or set off explosives with the hope of embarrassing Uncle Sam at war.

Letters sent by the War and Navy Department to the Board of Fire Underwriters, commending the Board's wartime anti-hazard activities, show that the Board is credited officially with the saving from destruction of millions of dollars worth of property stored in warehouses. In Ohio alone, 267 inspectors were in charge of the work of guarding storage plants, and it was discovered in some warehouses that aliens had disconnected the sprinkling systems and that preparations had been made to set fires. At one storage plant listed for burning

Every warehouseman will receive the following document, which he will be requested to file with the conservation officials of the National Board of Fire Underwriters:

**REQUIREMENTS OF
 THE CONSERVATION AND FIRE PREVENTION ASSOCIATION OF
 THE STATE OF**

HEADQUARTERS:
 (Insert Street Address)

.....
 (Insert City and State)

.....
 (Date)

.....
 (Owner or Manager)

DO NOT LAY THIS ORDER ASIDE, IT IS IMPORTANT

I have made a careful inspection of your premises. The safety of your plant requires that you begin at once to eliminate the following **FIRE HAZARDS**, as noted below. Please sign and mail this blank to the above office immediately after the same has been complied with.

DISTRICT No.

.....
 Special Conservation Inspector of

I have complied with the above requirements.

Date completed

.....
 Owner or Agent.

was more than \$300,000 worth of products which had been purchased by the Government.

(Next month: Another article on eliminating fire hazards)

Pittsburgh Truckmen Organize

PITTSBURGH, Jan. 10.—Offices of the Pittsburgh Transportation Association, composed of motor truck owners in Allegheny county, have been opened at 1006 Century Building. Charles Donley has been appointed secretary and is in charge of the offices, where transportation service can be obtained quickly. Under this system truck owners of Pittsburgh and Allegheny county may have a central place where arrangements may be made for equitable distribution of the requirements of users of truck service.

Warehouse as Tobacco Mart

WINSTON-SALEM, N. C., Jan. 3.—Much of the trading in tobacco in this city is now being carried on in the recently opened Brown's warehouse. Heavy sales have been reported every day since the opening in November. The new warehouse has 47,000 sq. ft. of floor space on the main floor. A thirty-foot elevator is being put in at the rear of the warehouse to convey wagons and automobiles from floor to floor so they

may be unloaded without extra handling.

In addition to the regular warehouse features, the buildings provide rest rooms for women, sleeping quarters for farmers and stalls for their horses, as well as storage room for their automobiles. The warehouse will be fully equipped next season as one of the most modern buildings of its kind in the tobacco growing region of the south.

Warehouse as R. R. Agent

LANCASTER, PA., Jan. 2.—Plans for the erection of a large modern storage warehouse have been completed by the Lancaster Storage Co., and work will soon be started on property purchased recently from the Pennsylvania Railroad Co.

The warehouse will be erected in the center of the plot and a driveway from adjoining streets will be constructed. The offices will be located in one of the present dwelling houses on the property. The company has made a contract with the railroad company to take charge of all unclaimed and damaged freight and will act as agent in locating the owner for the

final disposition of goods.

The Lancaster Storage Co. acts as distributing center for many foreign manufacturers, and a permanent stock of general merchandise is maintained to supply local dealers.

To Enlarge Warehouse

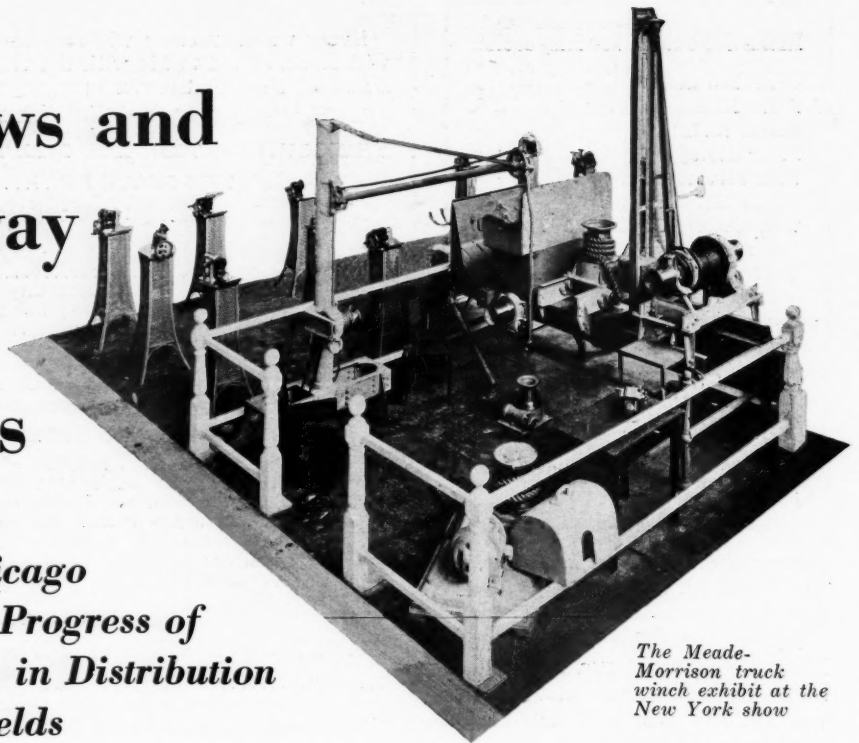
Durham, N. C., Jan. 10.—Additions to the Star Brick warehouse planned for the summer months will make it the second largest tobacco warehouse in North Carolina. The improvements will be made during the war months so there will be no interference with tobacco sales.

To Eliminate Rats from Warehouses

The New Orleans dock board has let a contract to ratproof all wharves except five. This undertaking, which assures better protection for goods in warehouses, will cost \$2,000,000; and at an additional cost of \$500,000 the wharves are to be paved with wooden blocks. A \$1,000,000 addition to the city's cotton warehouse is to be constructed.

Truck Shows and The Highway Transport Conferences

*At New York and Chicago
Tell the Story of the Progress of
Commercial Vehicles in Distribution
and Warehousing Fields*



The Meade-Morrison truck winch exhibit at the New York show

THE motor truck shows at New York and Chicago in January offered much of constructive value and general interest to merchandise and household goods warehousemen and transfer company executives engaged in distribution of merchandise.

Some of the chassis and body vans displayed were newcomers in the storage and transfer industries; and conversations with the men in charge of the exhibits disclosed a widespread trend on the part of manufacturers toward sales promotion campaigns in the warehousing world as a vocational field fertile in its distribution requirements for commercial vehicles.

Aside from the exhibits of trucks and accessories, the highway transport conferences held in conjunction with the two shows attracted deserved attention because of the importance of the addresses made by men qualified to voice information of interest to the industries which use the truck. Quotations from some of these speeches are to be found on Page 24, and others will be published in the March issue of *Distribution & Warehousing*.

Following is a synopsis of things which were of interest to the warehouse and distribution representatives who visited the shows:

THE Autocar Company's exhibit included its new heavy duty truck, with total chassis, body and load capacity of 18,000 pounds. One of the bodies displayed is the same as that used by the Metropolitan Transfer Company, New York, in local and long distance hauling—a furniture van, 13 ft. long, 7 ft. wide and 7 ft. high. The wheelbase is 120 inches and there is a double reduction gear drive. Solid tires are used. The percentage of load distribution on front wheels constitutes a great saving in rear tires. A booklet circulated by the company contains a list of approximately 1500 express and transfer men making use of Autocar.

A CHASSIS and body especially designed for the transport of household goods has been built by the Commercial Truck Company, Philadelphia, and the chassis of this C. T. electric product was on display. The standard C. T. chassis is a 2-ton affair. This has been lengthened into a 5-ton chassis, with 47 per cent of the weight of the body resting on the front and 53 per cent on the rear, one purpose of this arrangement being that all tires will wear out at once. The Commercial people guarantee a ten-year life for chassis and body, the two to retire together. The body is 6 ft. 6 in. high, 6 ft. 6 in. wide and 14 ft. 6 in. long. Solid tires are used. The cost of this machine, including art work, is \$4,460.

The thought of the Commercial people is that electrics are better adaptable than gas cars for local moving. The larger chassis has been designed to minimize vibration, thereby lessening the likelihood

of damage to household goods. The drive does not require a special man for operating, any man on the van being able to do this easily.

One of the C. T. electric household goods motor vans is shown in the accompanying photograph—a machine purchased recently by the Manhattan Storage & Warehouse Co., New York City. The Commercial company makes a service feature of analyzing a warehouseman's particular needs and is now engaged in doing this for the Miller North Broad Storage Co., Philadelphia. The Commercial company exhibited at the New York show only.

THE Denby Motor Truck Company is another concern which purposes to make a motor truck sales drive in the warehouse industry as a vocational field. Its 2½-3 ton standard chassis and 2 and 3½-4 ton chassis were on display at the New York and Chicago shows. The 2-ton carried a stake and rack body 8 ft. long, 5 ft. wide and 3 ft. high. The 2½-3 standard is particularly fitted for inter-city hauling. The New York and Philadelphia Express maintains a regular service between New York and Philadelphia, carrying all sorts of merchandise on Denby trucks. Speed and economy are emphasized by the Denby people in discussing assets.

THE Diamond T Motor Car Company displayed two trucks adaptable for merchandise distribution, both local and long distance. The 5-ton chassis was claimed by the exhibitors to be "the highest priced truck in the United



Specially designed chassis and body for household goods moving—a 5-ton C. T. electric model



The 5-ton chassis (exhibited at both shows) on which this van was built was recently placed on the market by the Diamond T Co.

States"—\$5,785. The first of this weight was only recently put on the market. It is equipped with an unusually large motor—4½ by 6. The 3½-ton chassis is already used by many warehouses and transfer companies.

OF five models shown by the Federal Motor Truck Company—1, 1½, 2, 3½ and 5 tons—the 2 and 3½-ton models were featured as especially adaptable for use in the warehouse and transfer industries. The 2-ton is equipped with pneumatics, has a 14-ft. wheel base, and a 13 ft. 4 in. body frame, and is widely used in household goods and furniture moving. The 3½-ton, with solid tires and a standard 156-in. wheel base, is adaptable to transport of heavier merchandise goods. Merchants Delivery & Storage Co., Toledo; Orth Can & Storage Co., Pasadena, Cal.; Big Springs Transfer Co., Big Springs, Tex.; Lloyd Transfer Co., Seattle; Harrison Transfer Co., Norfolk, and Cathcart Transfer & Storage Co., Atlanta, Ga., are a few of the users of these Federal models.

THE Garford Motor Truck Company, Lima, Ohio, displayed a complete truck and body for use in household goods and furniture moving. The body is 14 ft. long, 74 in. wide and 82 in. high. This height is designed to give sufficient clearance for bed springs and enough width for sideboards. Underneath the body is a space for storage of bed rails, curtain poles and similar household equipment—a building feature which has been ignored by many builders of bodies. It is the Garford contention, as illustrated by the truck on show, that each body should be inclosed, with a light tailboard at the rear surmounted by rungs. The chassis is of 2 tons, with 144-in. wheel base. Solid tires are used but pneumatics will be installed for additional charge. The Garford people displayed also a 3½-ton chassis, for use in heavy hauling, with a new feature introduced for this model—the motor in front instead of under the seat.

THE Indiana Truck Corporation, Marion, Ind., plans to study and analyze the warehouse field with the idea of circulating vocational booklets to in-

form the industry what it has to offer. At the shows Indiana people exhibited 1½, 2, 2½, 3½ and 5-ton models of chassis and gave prospective customers literature which contained photographs showing how these trucks were being used for merchandise distribution.

THE Kelly-Springfield exhibit included a 3½-ton chassis particularly adaptable for long distance hauling. The Wagner Transfer & Storage Co. of Springfield, Ohio, operates a fleet of seven or eight of these, and the claim is made that one of them has covered 150,000 miles. For warehousemen the Kelly company has compiled cost figures based on experiences of these trucks in various localities.

THE Pierce-Arrow Motor Car Company's representatives at the shows declared the demand in the warehouse industry was greater for gas than electric cars. One of the Pierce-Arrow cars shown is a 2-ton chassis, with body allowance of 1500 pounds over the freight capacity of the chassis, and with a 15-ft. wheel base—a length claimed to be ideal for a moving van. It was claimed that this chassis, the company's standard one, is capable of doing a day's run of 100 miles. The Lexington Warehouse, Brooklyn, is using a fleet of four or five of these vehicles.

THE Republic Motor Truck Co., Inc., is one of the commercial vehicle manufacturers which have studied the warehouse industry as a vocational field and designed trucks accordingly, and some of its models were on display at the two shows. "Warehousemen," says a descriptive pamphlet issued to this industry, "require, above all, strong, well-built and sturdy trucks. Their work takes them over

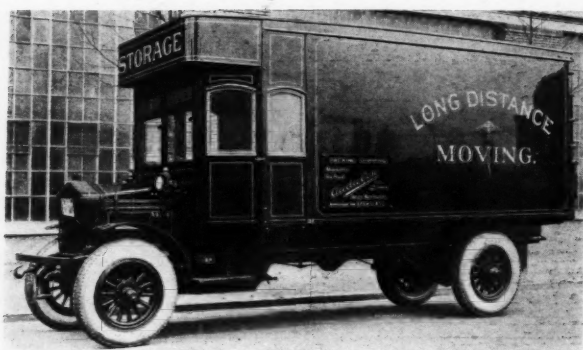
good roads and bad, the nature of their loads is variable, and the hours of service are irregular. Trucks doing such work should have regular inspection. They should be carefully driven because a tie-up results in a serious loss. In the warehouse business a truck is frequently the principal investment and should be carefully guarded." The claim is made that thousands of Republic trucks are being used in the express and warehouse hauling business.

The Republic models include 1, 1½, 2, 2½ and 3½ tons. The vocational pamphlet circulated shows that these trucks are being used by merchandise and household goods warehouses and by short and long distance trucking companies engaged in merchandise distribution in all parts of the country.

THE Selden Truck Corporation exhibited four machines—1½-ton, with body and with pneumatic tires; and 2½, 3½ and 5-ton chassis each with solid tires. Features of the 2½ and 5-ton models were steel wheels, shown for the first time. "Extra long life and low maintenance cost" were emphasized as ship-by-truck assets of the Selden machines, together with joints of flexible type, and flexible springs to avert sudden jars and jolts which might cause damage.



A 3½-ton Kelly-Springfield attracted special interest from warehousemen who visited the New York show. This is the type used in fleet of Wagner Transfer & Storage Co. of Springfield, Ohio



Household goods moving van on a Pierce-Arrow 2-ton chassis exhibited at both shows

The Selden chassis were declared to be peculiarly adaptable to transportation service.

A FEATURE of the Sterling Motor Truck Company's exhibit was the 7½-ton chain-driven inter-city freighter, designed for heavy hauling for long distances. The standard chassis has a wheel base of 174 in. Solid tires are used. Special bodies are available for all kinds of hauling.

AMONG the five sizes exhibited by the Stewart Motor Corporation were 1, 2 and 3½-ton models designed for delivery and warehouse purposes. The 1-ton is built in open and covered-express models. The 2-ton and the 3½-ton trucks were especially commented on by visiting dealers catering to the heavy truck business of distributing and warehouse concerns. Regarding the 1-ton model this statement was made by a man in charge of the exhibit:

"Because good drivers are scarce and high priced this new Stewart model is made to humor them; it has electric starter and electric lights; it carries out the Stewart policy of simplicity—all useless parts eliminated. It will prove its value in muddy and sandy country as well as city streets. It is built on the same principles as the 3½-ton Stewart, only smaller."

OF chief interest to the warehouseman and distributors who inspected the Walker Vehicle Company's exhibit was the 5-ton chassis. Fifty-seven of these electric-driven machines are being used by the Bush Terminal Company in its distribution work in and around New York City, and the American Railway Express Company has a fleet of 120 among its 1100 electric trucks in use throughout the country. The claim advanced by the Walker people is that the cost of operating electrics is from 30 to 50 per cent cheaper than either gas trucks or horses. The Walker electrics, it was stated, are qualified to cover from forty to fifty miles in one day's service, and are therefore ideal for haulage work within a city.

THREE models were shown by the Highway Trailer Company, one of

1500 pounds, one of 3500 pounds and one of 6 tons capacity. The claim was advanced that with a Highway trailer the load hauled by a motor truck could be doubled.

At the Trailmobile Company's exhibit it was announced that a special drive would be made in the warehouse industry to merchandise its products. "Convert a small power unit into a larger one,"

is a Trailmobile slogan; used with a semi-trailmobile the carrying capacity of any motor truck is doubled or more than doubled, it is claimed, while the operating expense "is increased very slightly." By using the trailer, the load carried on each wheel of a truck is reduced and the tendency is to preserve good roads. The Trailmobile chassis on display at the shows ranged from 2½ to 10 tons in capacity useful load. Trailer use is analogous to the locomotive drawing freight cars—the railroad system is applied to motor trucking.

THE Warner Manufacturing Company's exhibit of trailers included a semi-trailer with fifth wheel, a two-wheel heavy duty model and a four-wheel heavy duty type. The Warner company has built moving van bodies and agrees to construct any types of body desired, either for merchandise or household goods transport, and to construct trailers of various designs to meet given requirements in various industries. A fundamental feature by the Warner company is the presence of a drawbar which works like a socket in the human arm, so that it requires only one man to couple up the hitches.

OF particular interest among the accessories was the exhibit of the horizontal, drum and vertical capstan types of truck winches manufactured by the Meade-Morrison Manufacturing Company. It is claimed that the warehouseman who owns a truck can send his machine out with only two men instead of four if one of these winches is part of the equipment. The combination of winch and truck, it is declared, "results in higher efficiency and greater economy for the truck used." The winch is used for loading and unloading heavy or bulky materials, for hoisting, and for pulling the truck out of mudholes and ditches.

HIGHWAY TRANSPORT CONFERENCES

FOLLOWING are excerpts from addresses at the Highway Transport conferences at either New York or Chicago, or both:

From "Cost Accounting, Routing and Dispatching," by S. S. Merithew, of the Packard Motor Car Company.

Transportation will become efficient only when organized business recognizes it as our first necessity. The motor truck is the link needed to complete other forms of transportation, but to do its share it must be correctly applied, supervised and maintained. Scientific cost accounting, routing and dispatching are indispensable factors in its application and supervision.

Cost keeping worthy the name is not alone the keeping of costs, but those data which control the cost. Without such a system, no organization, however good, is in a position to select, apply or supervise motor truck equipment that could be expected to prove efficient.

A system complete enough to make supervision possible will check the truck on idle, productive and repair time much as the time card checks workman. The truck should be efficient in load capacity, economical in fuel and tires, regular at work with a minimum of repairs, and show a reasonable life. No firm can give you dependable facts on truck operation and cost, its prospects, until its owners supply the facts.

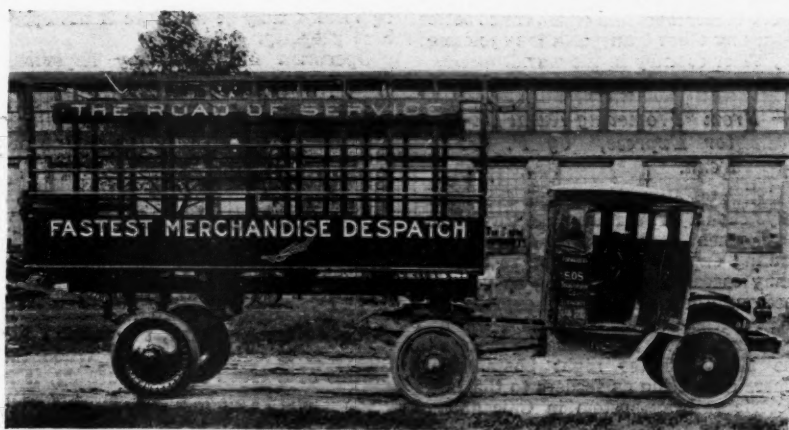
Co-operation

A system exists to provide facts on which to base business judgments. If the facts are inaccurate the business judgments may be worthless. The cure for present conditions lies in unlimited co-operation between the manufacturing public and the user of motor truck equipment and between individual user concerns. Cost and operation data is for comparative purposes, and need only be accurate enough to make the comparison accurate.

The cost per day, per mile, and per ton-mile depend on daily mileage; the cost per ton depends on trip distance and therefore these items ought never to be considered separately.



New Stewart 1-ton model displayed at New York and Chicago shows



Warner trailer, of type displayed at both shows, drawn by specially built tractor truck, in merchandise distribution between Chicago and Evanston, Ill.

Successful routing and dispatching must consider: length of haul, material to be moved and its condition, road and traffic conditions, the delivery point, and the limitations and advantages of available equipment; the service to be rendered, the time to start the work and the time it will require, the customers to be served and their location.

From "Rural Motor Express," by Tom Snyder, Secretary of the Indiana Transfer and Warehousemen's Association.

I may be a little overenthused about the motor truck and its coming service to society, but I truly believe it the greatest instrument of transportation evolved by man. It is the most immediate relief for car shortage, freight congestion in large industrial centers, limited terminal facilities, transportation and distribution of perishables; it is a new vital artery into every town and hamlet, it is a conservator of time and energy—in short, it is a new connecting link which will make more

powerful, and thereby more productive, the current of activity throughout all industry.

From "Taking an Interest in Legislation," by Charles Thaddeus Terry, a New York Lawyer.

You have heard the cry that as the owners of automobiles are practically the only ones who use the highways in these days therefore they should pay for them. That is arrant nonsense. There is not a word of truth in it. The reverse is true. Everyone—man, woman and child—uses the highways and uses them by automobile. It is not simply the owners of the automobile who use them; it is everyone who is helped, assisted, conveyed, inconvenienced by the things which automobiles do who use the highways. In other words, it is in very fact and very truth a public utility which the public and every member of the public uses every day and every hour of every day.

Automobilists have only to recognize their strength, have only to count their

numbers, have only to plan their program, have only to understand their rights in order to secure them inevitably. Let us then be up and doing and not sleeping upon our rights, not allowing inertia to permit the enemy to invade the sacred precincts of the privileges which we have a right to enjoy.

From "The Advantages of Rural Motor Express to the Shipper," by Peter G. Ten Eyck, Chairman of the New York State Highway Transport Committee.

The motor truck has revolutionized the transportation system of the country. It has become the greatest short-haul method of transportation on account of its flexibility, mobility and durability of service. It has supplanted the horse because it does not have to reckon with distance. It has supplanted the trolley system because it is not limited to location. It has supplanted our waterways because it is not governed by seasons. It has supplanted the carrying power of man because it is he who is the driver or directing mind of this great force. The representatives of the railways, of the highways and of the waterways must co-operate to give the best service possible to the producer and to the consumer. This can best be done by creating junction freight terminals where water routes, highway routes and railway lines will come together for an exchange of their freight. The railway bringing the fast freight and express to the interior to be distributed by the motor truck. The motor truck when delivering its load must gather together throughout the country or rural districts the produce from the farm and convey it to the joint freight terminal to be carried to the cities for redistribution by other motor trucks to the consumer. On the other hand, our natural water routes should be utilized to carry heavy tonnage for long distances to terminal or junction centers



Part of the fleet of fifty-seven Walker electric trucks used by the Bush Terminal Company. Five-ton chassis of this type attracted the particular interest of distributors at both shows

to be redistributed by the railways and highways to the outlying districts.

The railway companies must be permitted to charge enough for their services so as to obtain a proper rate to the stockholder upon his investment and pay the employee a fair wage for services performed and give to the shipper or traveling public the best service possible at reasonable rates.

Sound Basis for Credit

To accomplish the foregoing it is necessary that the credit of the railway companies be established on a sound financial basis. The cost of transportation must be kept at a minimum so that a just and adequate income can be obtained at a reasonable traffic rate. The best service can only be supplied to the traveling public and shipper at the least cost by the most improved methods of operation through the co-operation of the interdependent transportation systems.

The railways will be the largest borrowers of any business in the country except the United States itself. Therefore, they need the assistance of the Federal Government to give them the necessary credit to borrow at a reasonable rate, namely, a rate near that which the Government itself enjoys.

In no way should one of the trio of the transportation systems be permitted to throttle the other because there is enough business for all if the different classes of freight is segregated and allotted to the proper system that best can handle it.

I predict in the near future that at junction points the railways and the highway motor truck will come under system and that each community will have a well organized local, as well as a rural express service to handle all the freight and express which is brought in or sent out at every reasonable size town or city. When this is accomplished we will have reached a perfection in transportation beyond the fondest hopes

of our forefathers and equal, if not better than, any other transportation system of any other country in the world.

From "Promoting Rural Motor Express," by F. W. Fenn.

Railways, electric lines and the waterways should not stand in the way of the development of rural motor express lines hauling express freight, for in a great many cases they are acting as valuable feeders. For instance, rural express lines from Pittsfield, Mass., and Utica and Syracuse, N. Y., are acting as feeders to the Hudson River night boats, while others are acting as feeders to the large electric railway system in Chicago and Milwaukee.

Colleges and universities all over the country have become interested and either have or are going to establish courses which will put motor truck operation over the highways on a sound business basis and which will in time help in the building of a system of feeders and short-haul transportation lines, making accessible the vast areas of rich agricultural land, increase the production of food-stuffs, and with that production bring a reduced cost of living.

From "Loading and Unloading Devices," by Joseph Husson, Editor of Commercial Vehicle.

When the wheels of a truck are not turning, it is not making or saving money for its owner. It is not so much the truck as the method of operation upon which the success of any kind of truck transportation depends. While, of course, the size of the truck, the kind of body fitted and the equipment used in connection with it must be considered, even the highest-priced truck, with the most complete

equipment, may be a failure if not operated properly.

Operation includes many important factors, such as routing and dispatching, the training of the drivers, etc. It also includes the method of loading and unloading the goods carried, for no delivery can be completed until goods are loaded and again unloaded.

Idleness Unprofitable

During these loading and unloading periods the truck is standing idle. It is then not a vehicle but a mere repository for goods. Its wheels are not turning. It is not covering ground, the purpose for which it is built and sold. When the wheels of a truck are not turning, it is not earning profits. The greater portion of the day the truck's wheels are turning the more work is done. The greater the ratio between the idle standing time and the total working time each day, the less is the work done. It is therefore evident that it should be the aim to reduce to as great an extent as possible this idle standing time during the loading and unloading operations.

This may be done by the judicious selection of loading and unloading devices. There is a wide diversity of such apparatus, for it is evident that the same apparatus that unloads rolls of print paper would not handle building brick with the same degree of success.

Three Types

Loading and unloading devices may be grouped under three heads, as follows:

1—Those devices by means of which the entire truck load is loaded or unloaded en masse or in one operation.

2—Those devices mounted on the truck itself to unload the goods carried in bulk or piece by piece.

3—Those devices not mounted on the truck itself but on the ground or at some point adjacent to the loading or unloading platforms.

American Suggests Finnish Warehouses

A warehouse established in Helsingfors for the storage of quantities of various American goods, with tariff to be paid only as goods are sold, suggests itself as a probably sensible business proposition. Only a small amount of capital from each of many firms of different lines represented, with a sufficient quantity of goods to make quick deliveries as soon as bought, would be required. Such a miniature American

wholesale city, where goods could be seen, bought and promptly delivered, certainly presents advantages.

This proposition was brought to the attention of the Finnish authorities some time ago by an American agent, who might have been able to realize the project had he received sufficient encouragement. His idea was to establish such houses also in Reval, Riga and Lubeck. The idea appears more attractive when future trade with Russia is considered.—

—U. S. Commerce Reports.

Maine Cold Storage Bill.

PORTLAND, Maine, Jan. 15.—Considerable opposition has arisen against the cold storage bill introduced by State Senator C. E. Gurney in the Maine Legislature at a special session last November, and referred to the next Legislature, which does not convene until January, 1921. The bill, in the form in which it was introduced, was based upon the federal act, combined with that of the uniform cold storage act purposed by the commission on uniform legisla-

tion. There is a feeling that there ought to be a cold storage bill in this state, but that it should be one which would not work injury to business legitimately and properly conducted.

New York Association Meets

NEW YORK, Jan. 20.—The Port of New York Warehousemen's Bureau of Information at its meeting here to-day elected William E. Halm, New York Dock Co., president; W. C. Crosby, vice-president; W. F. Oakman, secretary, and

F. S. Phramer, treasurer. These four and D. H. Van Name are the directors. F. E. Spencer, Independent Warehouses, Inc., was chosen chairman of the general merchandise section, and R. A. Adams, Manhattan Refrigerating Co., of the cold storage section. The John B. Hobby's Son Co. was elected to membership, making twenty-five members in all.

COMING

A traffic manager's own story of handling of warehouse reports.

The Effect of the War Upon the Cold Storage Industry

By I. C. FRANKLIN,

(Specialist in Storage, Bureau of Markets, United States Department of Agriculture)

IN connection with the distribution of ultra-perishable foodstuffs, the inventive genius evolved the processes of refrigeration for the purpose of deterring bacteriological changes in the products as are affected by these changes, and of preventing inroads of the life processes in vegetable products which continue to be living organisms until they have reached a condition unsuitable for human consumption. The utilization of refrigeration for the preservation of foodstuffs was not initially developed as the solution of a scientific problem, but rather was the outgrowth of the experience of a rather primitive people, shown by the effects of the seasons upon the foodstuffs produced. Following this elemental experience, scientific men developed processes for the production of refrigeration, which means the elimination of heat between certain limits of temperature, these scientific developments having taken place in the generation just preceding this one, so that the construction and utilization of cold storage warehouses are of very recent date, and the utilization of storage space at marketing centers is of even more recent origin.

Just prior to the entrance of the United States into the war, a survey of the country was made for the purpose of disclosing the amount of cold storage space that was in operation at that time. For the purpose of this survey a cold storage was considered a structure in which a temperature of 45 deg. F. or below was maintained, and in which stocks were stored for thirty days or longer. This survey disclosed only such space as would be utilized by stocks in process of wholesale marketing. According to the survey then made, it was shown that we had approximately 475,000,000 cubic feet of storage space used at varying temperatures, and that there were about 125,000,000 cubic feet of this grand total that were

"IT is most fortunate for this country and for the world's affairs that the cold storage industry existed in this magnitude," says Mr. Franklin, alluding to his figures showing that at the time America entered the World War approximately 475,000,000 cubic feet of cold storage space was available.

Mr. Franklin's speech, delivered at the meeting of the Cold Storage Sub-division of the American Warehousemen's Association at that organization's annual convention at Cincinnati, announced that the Government was conducting another survey to determine the extent of cold storage space to-day. Subsequently, however, it has been learned that the work of this survey has been deferred until the enactment or defeat of the Federal cold storage legislation. When final action is to be taken by Congress on this bill is problematical. Eventually the survey is to be made.

utilized for freezing temperatures. There have been some increases in space since. Just how much, we do not know, but the Bureau of Markets is arranging a survey for January 1 to disclose it. This seemed an enormous figure. It is, however, most fortunate for this country and the world's affairs that the cold storage industry existed in this magnitude, as will be shown later.

The declaration of war against Germany was consummated by the United States April 6, 1917. Our forces began to move overseas in the following July, but in relatively small numbers until May, 1918. At that time there were 424,000

soldiers in France, and from then on until November there was a rapid increase in the number sent over—of approximately 300,000 men sent over—each month. It will, therefore, be seen that our heavy shipments of subsistence did not begin until March, 1918. During the fiscal year ending June 30, 1919, we sent over to France 373,140,000 pounds of fresh frozen beef. During this period the total of beef, fresh, frozen, corned, and cooked, these two latter placed in cans, bacon, ham, salmon, and cheese amounted to 677,600,000 pounds, so that more than half of the meat subsistence for the Army was supplied through the co-operation of the freezer storages in preparing frozen beef.

Doughboy Food

It is also desired to point out that during this period every meat canning factory in the country was being operated to its maximum capacity, 100 per cent of its output being utilized by the War Department for subsistence purposes, so that had we not had the large freezer facilities available, we would not have been in any manner in position to have coped with the large problem of army subsistence. The meat component of the army subsistence is the most important item

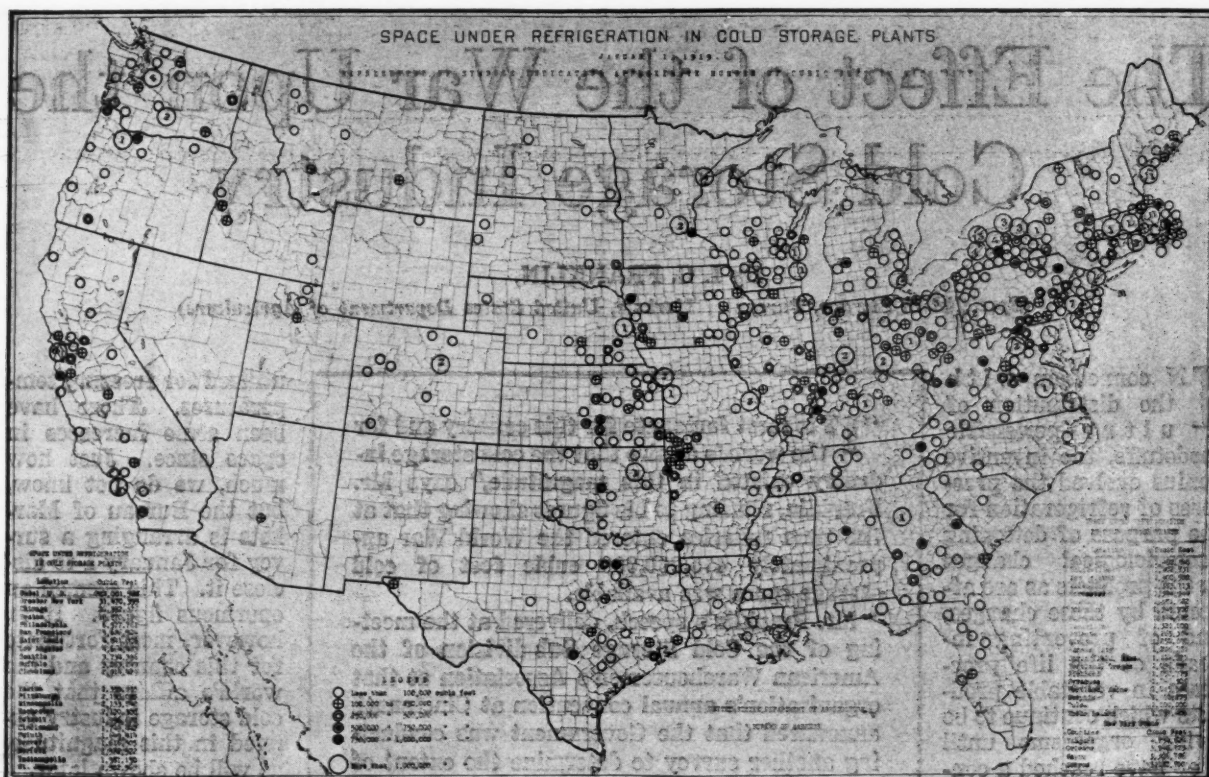


Chart prepared by the Bureau of Markets, United States Department of Agriculture, after a survey conducted during the war to determine of what service the nation's cold storage warehouses could be to the country

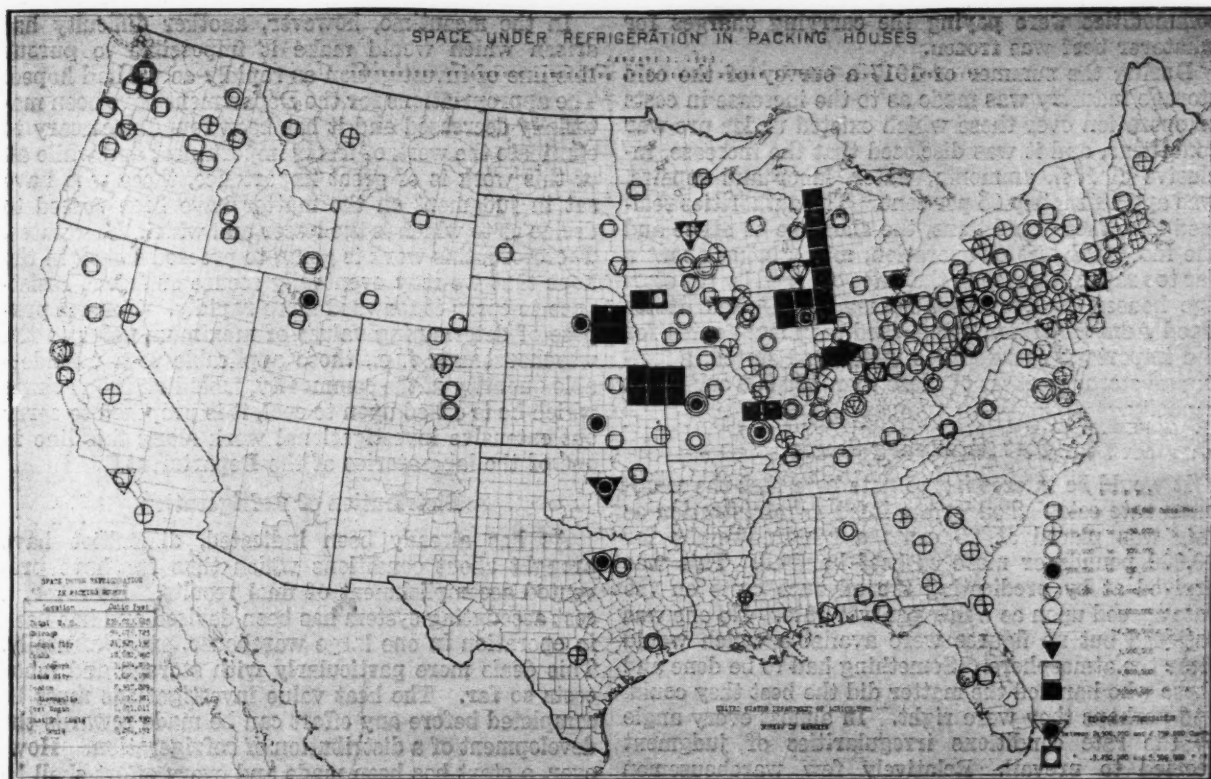
of the entire list, and while the individual soldier is fed on bread and cereals, beans, rice, hominy, dried fruits, coffee and other materials, it is expected that he would secure approximately 26 $\frac{3}{4}$ pounds of the meat component per month. It is, of course, realized that some of the boys did not at all times secure this ration, largely because in the rush of affairs when the rapid movements were taking place they were unable to keep the highly perishable subsistence movement up with the movement of the troops. While everything possible was done to give the boys a large variety of food in the trenches, it was not always possible to carry to them the same supply of foods that they received further away from the warring area. However, be assured that the boys had plenty to eat when not in the trenches, for information has been received that many of them have lost considerable weight since their release from the Army.

It may be of interest to note in this diversion from the general topic that during the war the losses at sea for fresh beef were 1,022,000 pounds, and of the total of the meat component approximately 8,500,000 pounds. In addition to the beef that was sent over to Europe for the use of our Army, the bulk of the beef utilized by the Allied Armies came from this country. Early in 1917 we began to realize that the United States held the only available supply of beef in the world. While there was beef in the South American states and in Australia, there was no possibility of securing any great amount of it because of the inroads of the German submarine on the available shipping. One of the great problems that had to be met was the

securing of adequate transport capacity, and with this in mind and realizing that it would take a ship twice as long to make the journey from a French port to a South American port than from a French port to New York City, which means that it would take two ships to carry from South America the same amount of foodstuffs that one could carry from New York, the shortage of vessels became highly important in the decision as to where the produce should be shipped from. This was realized in 1917 and the Allied Governments were shipping from this country an amount of refrigerated products almost equal to that sent to our own Army.

Freezer Capacity Reached

This then threw almost the entire load on to the production of the United States. It must also be realized that in the design and construction of our cold storage warehouses, it was contemplated that of the freezer stocks which would enter the warehouse the bulk of the stocks would come in gradually for freezing and would remain for a long holding period. This is the usual practice. Under the necessary plan of operation for freezing beef, it is obvious that the freezer would be used largely for the purpose of preparing the product for proper shipping conditions, and so the storages were made to freeze it solidly and not for any considerable holding period. This plan, therefore, placed an abnormal load on the cold storage houses and in August, 1918, the load became so heavy that the freezing temperatures had risen from 0 to 5 deg. to 16 to 18 deg. throughout almost all the freezer



Another survey—covering the packing industry—conducted by the Department of Agriculture during the war. Similar surveys to this one and to the one illustrated on page 28 are to be made by the department

space east of the Missouri River and north of the Ohio. This means that the period for freezing was lengthened from 72 hours to about two weeks. There may be one or two exceptions to this, but the congestion was such that it was necessary at that time to discontinue the placing of fresh beef in the freezers for a period of over a week in order to permit the temperatures to come within the proper freezing range. This practical demonstration of limit of capacity brought to the attention of the authorities in no uncertain terms the necessity for increased freezer capacity, since it was expected that the war would continue throughout another summer.

Facilities Increased

It was, therefore, agreed that a cold storage house built for rapid movement into and out, and with large and adequate freezing facilities, would be erected at one of the western producing points, and that there would be an enlargement of the facilities at port. It had been found necessary that a large supply of beef ready for shipment be held at port to be ready to load ships on their arrival because warning could not be received until the ship had actually reached port. This program of increased facilities was undertaken and the storage house at Chicago known as the United Cold Storage was constructed. An increase of the capacity was built at the Bush Terminal docks in Brooklyn, and a contract was let for other increases, which contract was terminated by the signing of the armistice, the work never having proceeded further than the agreements reached.

This, then, gives in general terms the rushed and crowded conditions under which the industry operated during the war period. The effect of this condition was to curtail the amount of marketable space and to bring about a radical increase in the rate condition.

Rates

It has been extremely interesting to observe the ideas of warehousemen as to what rates should be charged. Under pre-war conditions the rates for freezing beef and storing it for one month ran from 12½ cents to 30 cents a hundredweight. At the beginning of the war activities of the United States, one large cold storage house contracted to freeze and store beef for one month on the basis of 12½ cents a hundredweight. When the peak load came on, this freezer was operating at about 90 per cent of its capacity in freezing beef. The operator discovered that his costs of operation were exceeding his income by about \$13,000 a month. Now these people are not novices in the cold storage business. They had been in the business for years and the natural supposition is that they would have some knowledge as to what costs obtained, but apparently in this instance no recognition was taken of the amount of latent heat it would be necessary to extract from the meat in the freezing process. However, it may be said in their behalf that during normal times somewhat less than 5 per cent of the beef production is frozen so that relatively small quantities had to be thus dealt with. There had not been sufficient quantities frozen at any time to make an appreciable effect and it is likely that other

commodities were paying the carrying charges for whatever beef was frozen.

During the summer of 1917 a survey of the cold storage industry was made as to the increase in costs of operation over those which existed under pre-war conditions, and it was disclosed that the increase, inclusive of fuel, ammonia, water, labor and repairs, was approximately 65 per cent. The authorities realized that these conditions, the shortage of space and the increased cost of operation, might bring about a far too rapid increase in the rates charged by the storage houses, and for that reason the United States Food Administration established maximum rates for the important commodities which are stored, affecting all storage houses of more than 150,000 cubic feet capacity.

Cost Accounting Scarce

It would be interesting to note here that the maximum rate established by the Food Administration as fair was placed at 35 cents a hundredweight for 10,000 pounds or more of beef handled. This was arrived at by predicating the advance costs on the rate agreed upon as a fair pre-war rate. No one was satisfied but no figures were available which would clear the atmosphere. Something had to be done and those who handled the matter did the best they could, and perhaps they were right. In almost every angle of the rate conditions irregularities of judgment seemed to prevail. Relatively few warehousemen have ever maintained cost accounting systems, and these cost accounting systems which have been operating have been more largely for the purpose of supplying information in regard to general losses or gains than for the purpose of disclosing any intimate study as to what the storage of an individual commodity cost.

Further investigation into this problem disclosed that there are practically no authentic data bearing on specific and latent heats of cold storage commodities available. Such figures as are published are usually arrived at on the basis of the water content, which assumption leads to erroneous conclusions, especially in the case of latent heats of freezing, because of the evident fact that the commodity liquids are not water, but solutions of varying densities and must in consequence possess both latent and sensitive heat properties varying widely from those of water. Even were these heat determinations made with the small samples usually employed for such purposes, the results might be far from representative.

Few Sensitized Thermometers

Mr. F. B. Matthews came to the Department of Agriculture and his investigations disclosed that a calorimeter which was in the Department of Agriculture, with some changes, could be utilized for this experimentation. These changes were made, but it was necessary that highly sensitized thermometers be secured, and this was the stumbling block, for the manufacturers of these instruments were working so fully upon war activities that they could give no time to this apparently less important work. We have only recently been assured that these instruments will shortly be made available.

In the meantime, however, another difficulty has arisen which would make it impossible to pursue this line of investigation as rapidly as we had hoped. The appropriations for the Department have been materially decreased and it has been found necessary to eliminate the work of lesser importance; and while all of this work is of great importance, those who have sat in judgment on the matter have been forced to decide as to which is the lesser and which the greater. Therefore, this work is going to proceed slowly in the hope that we may eventually secure sufficient assistance to carry it forward more rapidly. For the purpose of determining values of maximum value to the warehouseman, i. e., those applicable to a considerable quantity of the commodity, including the package which he is called upon to cool, it is proposed to carry out extensive investigational work along this line in one of the laboratories of the Department.

Distribution of Refrigeration

As has already been indicated, difficulties have brought about conditions which thus far have prevented accomplishment of final results. However, a cost accounting system has been devised and has been in operation in one large warehouse, experimentally. This deals more particularly with storage and labor costs so far. The heat value investigations must be completed before any effort can be made towards the development of a distribution of refrigeration. However, a start has been made and every effort shall be made to pursue the matter to some conclusion. The warehousemen have been very greatly interested and have in their conventions expressed the hope that the Department will be able to give them the assistance needed, and, of course, that is a Macedonian cry that should be hearkened to.

Correcting Influences Desired

The cold storage industry is so vitally connected with the general distribution system of perishable products that it was thought wise some time ago to develop the facts of the magnitude of the stocks held for the benefit of the distributing system. There are many who believe that our marketing systems are all right, that God is in His Heaven and all's right with the world and that nothing should be disturbed. There are others who believe that the whole thing is rotten and should be destroyed, root and branch. Those who recognize the great good in our systems desire only correcting influences that will portray whatever faults exist so that our forces within the marketing systems themselves may apply the remedy; that the common sense and common judgments of men will see the benefits derived from fair pictures of all facts and will correct the faults. The latter position in the main discloses the essence of the belief and policy of the Federal Bureau of Markets, and is largely explanatory of the news services and reporting functions which that Bureau has developed. One important instance of this is the report issued monthly of the holding of cold storage stocks.

Surplus Stocks

It is the belief that the market fluctuations are largely due to the effect on the market of the opin-

ions as to the magnitude of the stocks of surplusages, and it is deemed important that in so far as it is possible to correctly do so, to show the amounts of these surplusages, compared to previous periods of operations so that there will be a tendency to stabilize the whole marketing of products affected. It is not possible to gauge to the minute just what the extent of the surplus stocks is, but it is possible to arrive at relatively correct figures as to their extent at certain definite periods, and therefore this work was undertaken.

Listing the Warehouses

In the beginning of this work it was found necessary to compile a list of the cold storage houses, as we were unable to locate such a list and before the work could be undertaken the Bureau must be assured that it had practically all of the firms listed. The Ice and Refrigeration Blue Book contained the names of all the persons who operated refrigerating machines and an attempt was made by them to designate the cold storage houses; but this publication had not been brought up to date and consequently was incomplete. However, it was of extreme benefit in the initial development of this work. The railroads were asked to compile lists of all of the cold storages on their rails. It was recognized that this would not secure all of these firms and so all of the township tax assessors were asked to compile lists within their jurisdiction. Next all commercial associations were asked to give lists within their territory. State food and drugs officials and utilities commissions in the various states were requested for lists within their jurisdiction, and finally state cold storage associations were requested to help, and they all made replies. This was before the enactment of the food control and the food production acts; there was no mandatory authority through which the storage firms were obligated to report, and purely voluntary action was requested.

The war in Europe was progressing and all seemed to recognize the abnormality of conditions and were anxious to have a Government agency secure facts regarding these stocks and publish them for the information of all for whatever benefit might be obtainable. When the Food Administration was established under the authority of the food control act and the systems of licensing was developed whereby all cold storage firms had to secure by application the license permitting them to do business, and the list that had been secured was checked with this new list of the Food Administration, it was found that all had replied voluntarily and that there were approximately 1500 such firms in the United States, including cold storage houses, public and private, and meat packing establishments that held foodstuffs in their rooms for thirty days at a temperature of 45 degrees or below. After the list was compiled, the reporting of the stocks of apples, meats, poultry, eggs, butter and fish was begun.

Mr. Horne's Services

Many regulatory measures were developed by the United States Food Administration which were advantageous to the cold storage industry and to the con-

sumer generally. The cold storage industry was represented in the Food Administration by Mr. Frank A. Horne, a man who has spent his life in the practical operations of a cold storage warehouse. Mr. Horne brought to the Food Administration not only broad experience and high degree of intelligence, but a fine type of loyalty and patriotism. The regulations placed upon the cold storage industry were in the main developed by him with the assistance of an advisory committee from the industry and the industry has found that these regulations were beneficial to the business. It is regretted, however, that while the authority existed to enforce these regulations they were observed, but that as soon as this authority was removed a few of the industry lapsed into some of their former bad practices. One of the primary faults, which was specifically corrected during the war, was the loaning to customers of the storage houses by the warehousemen sums almost if not equal to the market value of the collateral at the time it was stored. This is believed to be undesirable and was regulated to loans gauged by 70 per cent of the market value at the time the collateral was stored, but as soon as the regulations were removed a few of the warehousemen turned to this old practice, of course prompted by the hope that they would secure advantage over their competitors in obtaining business. It is felt by some that the warehousemen should not be permitted to lend money at all, and by others that the amount of the loan should be restricted as it was during the war period, and by still others that they should be permitted to lend any amounts they so choose. In these examples you have very largely the attitude of the entire cold storage industry towards regulatory matters.

A Timely Warning

Reference must be made to the condition of our refrigerator cars. They have had three years of extremely hard service. Labor has been short and only the most necessary repairs have been made so that now there is a larger percentage of cars than during normal times with defects which might cause losses unless they are guarded against.

Most of these defects are probably around the doors and you men who have to deal with such things should warn your people to protect products requiring low temperatures by rejecting cars needing greater repairs than can be made on the moment and by watching that doors fit tightly.

No car should be sent out unless examination has been made showing that the drip trap is in place and above all, cars used for moving frozen products should be iced a sufficient time beforehand to assure a proper condition in the cars. Every effort should be put forth to save foodstuffs now perhaps more particularly than at any other time in our history.

None of us has ever lived in an age of such large economic, social and industrial importance as the one we are now in. Men have varied judgments as to the solution of these problems. No one knows what the outcome will be, nor what remedies will be applied. It is a time for an abiding faith in right and justice. It certainly is a time for accomplishment, for applied energy and for work.

What the Industrial Traffic Manager Thinks of

The Return of the Railroads To Corporate Control

INDUSTRIAL traffic managers, virtually with unanimity agreeing that the railroads should be returned to private ownership, look forward to the following after March 1:

Elimination of "extravagant and wasteful operation."

Efficiency.

Divorcement from the possibilities of "partisan and destructive politics."

Good and dependable service.

Wholesome competition.

Increase of authority for the Interstate Commerce Commission.

Prompt payment of legitimate claims.

"Some pep" in the handling of freight.

Better distribution of freight cars.

Anti-strike legislation to govern railway employees.

General improvement of the nation's business.

After the Federal Government has restored the rail carriers to corporate control there will come radical changes, in methods and policies and motives, that should be of benefit to the nation's industrial life, in the opinion of traffic managers as expressed in letters on this subject to *Distribution & Warehousing*. Many of these communications convey the thought in the minds of the writers that were the railroads to continue under Federal operation politics would transcend efficiency in importance, with resultant extravagance and waste on the shoulders of the public.

The opinions expressed are not snap judgments; writer after writer emphasizes that he has for many years been associated with railroad conditions, either as an employee of a carrier or as a traffic manager representing some manufacturer who is engaged in national distribution of commodities and consequently is accustomed to use the services of nearly all the rail lines. One traffic manager who repre-

sents a New England envelope manufacturer, looks back "over a period of 34 years continuously devoted to transportation and about equally divided between two companies, one a railroad and the other my present association." He writes:

"May I be permitted to say first, and very emphatically, that I viciously disapprove of Government ownership or control of anything, least of all our railroads, representing as they do the very foundation on which our commercial life is built, and without which commerce would cease. My reasons for having arrived at this conclusion should be obvious to all sound-thinking men, regardless of their business activities, but primarily they are principally based on my unwillingness to subjecting, as they would be subject, our railroads to partisan and destructive politics, a condition that would inevitably come to pass more so in peace than in war time.

"Operation and management would undoubtedly continue in the future, as illustrated by the past two years, to be extravagant and wasteful, and as in the last analysis the public, shippers and travelers alike, must pay the bill, there is no doubt in my mind that private control and operation would be productive of the best results, something that we all want, I am sure.

"It is manifestly indisputable that men who have given the best part of their lives to railroad work, are unquestionably best qualified to run and operate our railroads, and should be unhampered as they now are and have been for two years past in their efforts to create good and dependable service, and should always have before them the rewards of initial activity.

"It is reasonable to presume that under private ownership and control competition would be restored, a very desirable asset for both railroad and shipper, for we all admit competition, clean and wholesome, and unwasteful, is good for any business, whether it be railroad, or otherwise, and here would be created an incentive for competing roads to give to the public the best that was in them, in service, courteous and prompt attention to requests and complaints, and a general uplift for betterment in all directions.

"So, too, should the return of competition include the re-establishment of city, or so-called off line agencies, proven

in the past to be of much help and benefit to the patron and bound to be equally beneficial and healthful to both the carrier and the public in the future.

"If I am dealing to a considerable extent with the C. & N. W. R. R., it should not be necessary for me to endeavor to carry on my business by mail, when many times almost instant action is necessary, and neither should I be compelled to go to Chicago, 1,000 miles away, for an accomplishment of the matter in hand, any more than it should be compulsory for me to deal by mail or go to Philadelphia when matters of much moment are involved with the Penn. R. R.

"These are a few of the points I am mindful of in my conclusion that private ownership and operation with all that they represent are desirable, rather than to have a continuance of Government control with its multitude of cumbersome, unnecessary and non-productive policies."

An interpretation of the rail situation in Cleveland is set forth in the following letter from the traffic manager of an Ohio tractor manufacturer:

"There is but one real reason why the railroads of this country should be returned to private ownership (not necessarily the present ones but to private control) because the fundamental principle of Americanism is involved, that is, for advancement.

"Personally I have no doubt but that Congress is going to return the railroads in such condition that the traffic manager is going to be satisfied. If he is satisfied then all the industries of the country will be satisfied.

"The only reason why they should not be under Government control is because of politics—and we in Cleveland to-day who are located on the Nickel Plate Railroad have a very good example."

This writer goes on to explain that the federal official identified with a different railroad was in a position to issue orders and that under such conditions "there is no question but that he is going to favor" that other road, with the Nickel Plate consequently suffering—to quote the traffic manager, "the Nickel Plate gets the bumps." He explains: "Orders have been issued to the Nickel Plate Railroad that they deliver so many empty cars to connections for grain loading in the West, with the result that there is not a firm in Cleveland located

on the Nickel Plate that can get one-tenth of their supply of cars"; whereas, he declares, the industries located along the favored road "can get all kinds of empties," the Nickel Plate being "robbed" for the benefit of the other road. He continues:

"This gives a very good idea of what would happen if the railroads of this country were ever run by the Government.

"Turn the tables and put them under private ownership, leaving each railroad to work out its own salvation, and you will see some real satisfied people.

"I am not a radical—and have no reason to be—but this present system is absolutely rotten and I can give examples of same for twenty-four hours without stopping."

A Canadian traffic manager who distributes hundreds of thousands of dollars' worth of commodities through United States warehouses annually, writes that:

"It must be apparent to any one who has had the occasion to make use of the U. S. railroads for shipping freight during the past few years that the present plan of operation is not a success and is not likely to be a success. In Canada the operation of the railroads is entrusted only to those who are practical railroad men, and they are now and always have been in the past accorded entire freedom from political interference."

A Rhode Island traffic manager who distributes wire products through warehouses writes:

"Private control of railroads would mean better SERVICE. Competition will put some pep in the handling of freight and we will look forward to receiving some action and decision on important matters. Legitimate claims will be paid more promptly and we hope to see the oldtime custom of keeping records at transfer houses revived."

What Federal control has meant to a Kentucky distributor of food products is told in the following views of a traffic manager:

"We look forward to the end of Government control like an ice-bound Alaskan awaiting the approach of the spring after an interminable night of winter darkness.

"Government control has meant to us car shortage, fraught with disaster ever present, ever menacing. It has meant deterioration of equipment and service, rendering all deliveries irregular, and all claims and complaints exceedingly heavy. It has meant indifference on the

part of railroad employees. It has meant red tape and most unreasonable delays in securing the most simple and proper rate adjustments.

"The industrial traffic man will no longer be continually on the defensive with his back to the wall, fighting with any weapons that come to his hand to retain those things which he has, but will have before him the freedom and opportunity to make his firm known for service, and to obtain those new arrangements and adjustments which make so much for business expansion. It is the dawn of a new era for the traffic men.

"And there seems to us just two salient points Congress must put in their railroad bills:

"1. Instructions to the Interstate Commerce Commission to recognize rates adequate to replenish railroad equipment, to expand as much as necessary.

"2. An anti-strike clause to prevent a

the employ of the railroads or in traffic departments of large shippers, I am heartily in favor that at least the following items be incorporated in the law which is now being made to take care of the railroads.

"First, that the roads be returned as quickly as safely possible to their private owners under the jurisdiction of such laws as are broad enough to give the American shipping public as near 100 per cent transportation service as possible. I cannot see how this can be done under either Government operation or Government ownership. Theoretically, Government ownership may be the cure of all our past transportation ills. Practically, American politics would interfere. There may also be other reasons, but the political reason is in itself overwhelmingly sufficient.

"I believe that strong competition should be created between all carriers as regards service. I can

not see how such competition will exist under a system of consolidation. In face of the packer's case, it seems to be the opinion that a business can become too large. I am not at all in favor of creating a transportation board, but, on the other hand, believe in increasing the authority of the Interstate Commerce Commission. Also, if necessary, increasing the membership of the commission, but one governing body is sufficient even to the extent that State commissions should not be given too much authority. State rates should have proper relation to interstate rates, thus eliminating so many of our present rate troubles.

"I also believe that the anti-strike clause is an excellent idea. The various labor unions are a great help to the American industry and in my opinion they can be a still greater help by creating the proper spirit among their membership. In other words, their membership should be limited to men who are proficient and are able to perform an excellent piece of work under their specific trade. If a union card meant that the owner thereof was skilled in his line of work and was a desirable American citizen, I believe the unions would be of greater benefit than by following some of their present plans. Further, that a considerable part of the so-called labor trouble would be eliminated.

"I do not believe in restricting the liberty or right of freedom of any man or group of men, but in so great a civilized country as America, people should never be permitted to want while capital and labor are endeavoring to adjust their differences."

(Continued on page 52D)

Shortly after definite announcement was made that the carriers were to be returned to private ownership, an industrial traffic manager wrote to *Distribution & Warehousing*:

"An expression from traffic managers throughout the country on the relinquishing of railroads to corporate ownership, would, I believe, give all interests a new and substantial viewpoint on the probable effect of the change as it relates to commerce—the practical and most vital function of transportation—and a viewpoint that might serve as a valuable guide in the readjustment thereto.

"There is no other fraternity in the world that can do that service justice, particularly that part of the fraternity that directed the movement of freight before the war, during the war and since the Armistice."

In response to letters of inquiry, *Distribution & Warehousing* received replies from traffic managers in all parts of the country. The quotations given herewith are from the more constructive of these. A few were obviously partisan attacks on the Administration at Washington, and these have been omitted.

nation-wide tie-up of traffic, guaranteeing, of course, a fair tribunal for settlement of labor grievances."

Service is touched upon by a Brockton shoe traffic manager, who writes:

"Service is a term practically unheard of since the beginning of the war and the only system which will give us service is putting the railroads more or less on a competitive basis. From a traffic manager's standpoint, therefore, I believe there is no argument whatever for the continuance of Government control or Government ownership, and the sooner the railroads are returned to private ownership the better the effect on the country's business in general."

Legislation affecting railroads is discussed by some of the traffic managers, several expressing their conviction that anti-strike laws should be enacted. To quote the traffic manager of an Indiana cabinet manufacturer: "From my point of view, based on my entire life having been spent either in

Organization of

NATIONAL FURNITURE WAREHOUSEMEN'S ASSOCIATION

**Is Assured—Illinois, New Jersey, New York
and Maryland Associations Ratify Plan**

THE National Furniture Warehousemen's Association will be organized in July, and will meet in December, probably in conjunction with the next annual convention of the American Warehousemen's Association.

The effect of this movement on the American Warehousemen's Association is problematical at this time. It may mean, in the opinion of leaders in the campaign, a termination of the activities of the household goods sub-division of the A. W. A.

If this prediction is fulfilled, James F. Keenan, of Pittsburgh, will be placed in a peculiar position. At the Cincinnati convention of the A. W. A. the household goods sub-division was given the privilege of producing a new president, and Mr. Keenan was elected to this highest honor in the A. W. A. Should this sub-division cease to function, Mr. Keenan might automatically no longer be a member of the A. W. A., inasmuch as his business firm, Haugh & Keenan, stores only household goods and does not handle merchandise or engage in cold storage. Mr. Keenan has opposed the movement to organize a national association of household goods warehousemen. At present he is an associate member of the New York Furniture Warehousemen's Association, but when the national organization is formed, in July, the New York body will begin dropping all its associate members outside of New York State, and Mr. Keenan will then have the privilege, along with other associate members, of becoming a charter member of the new national association without paying an initiation fee.

Mr. Keenan attended the New York association's

meeting on July 19, when that body voted to join with other sectional and State associations in forming the national organization. At the New York meeting all associate members were given the unusual privilege of voting, and Mr. Keenan cast his ballot against the national plan.

Walter C. Reid, of New York, presented at the New York meeting his report of the White Sulphur Springs, W. Va., gathering of representatives of various sectional and State household goods warehousemen's associations, in December, when these repre-

sentatives voted in favor of a national association. Mr. Reid has been a strong supporter of the movement. His position now is somewhat similar to that of Mr. Keenan, as he has for years been treasurer of the American Warehousemen's Association. His firm, the Lincoln Safe Deposit Company, does not handle merchandise or cold storage products.

At the New York meeting several radical suggestions were made by members. One was that the household goods warehousemen who are members of the A. W. A. go to the next annual conven-

The proposal advanced at White Sulphur Springs, W. Va., in December, that a National Furniture Warehousemen's Association be formed was subject to ratification or rejection by the individual section and State organizations. The vote to date is:

RATIFIED	REJECTED	NOT YET ACTED
Illinois		Pennsylvania (will decide Feb. 10)
New Jersey		Southern (will decide Feb. 10)
Maryland	NONE	Pacific Coast (will decide Feb. 21)
New York		Indiana (uncertain when will decide)
Texas		

Several warehousemen behind the movement to establish the new organization say they have been advised that sentiment among the members of the Pennsylvania, Southern, Indiana and Pacific Coast associations is for ratification.

tion of that organization and take complete control of the association. Those who advocated this step declared that the household goods sub-division has more members than the merchandise and cold storage sub-divisions combined, and that this majority vote would enable the household goods members to turn the A. W. A. into a household goods organization, with the other two sub-divisions thereafter playing only subordinate rôles. This suggestion did not meet with popular favor at the New York meeting, those opposing it asserting there was room

for two national organizations and that greater benefits could be obtained by the household goods men if they operated their own national body independent of the A. W. A.

If members of the new national association decide eventually to withdraw from the household goods sub-division of the A. W. A., such action will be taken individually. There was nothing in Mr. Reid's report or in the organization recommendations presented by a committee of which Charles R. Saul was chairman, which could be construed as urging the members of the New York body to withdraw in a body from the A. W. A.

One of the objects of the national association will be "to develop the highest standard of efficiency and ethics in warehousing household goods, to the end that the best interests of the industry and the public may be served." Household goods warehousemen outside the United States will be accepted as associate members.

Officers are to include president, four vice-presidents, secretary, treasurer, eight directors and an executive secretary. The vice-presidents will be regional chairmen of the four sectional divisions into which the country will be divided—eastern, southern, central and western, the eastern to include the District of Columbia and Porto Rico, and the western to include Alaska and Hawaii. Annual meetings will be held in July and semi-annual ones in December. One of the duties of the secretary will be to travel about the country to organize local associations. Dues will be \$25, \$50 or \$75 annually, commensurate with the square foot areas of warehouse operated by members; annual dues for associate members will be \$25 each.

Mr. Reid in presenting his report at the New York meeting said it was desirable that the associate members present give their opinions frankly as to whether a national association should be formed and whether the sub-division of the A. W. A. should be continued in operation.

Mr. Keenan was introduced and took a chair beside the chairman. He was asked to express his opinion regarding the national plan. He said no policy had been outlined by the A. W. A., but that this was something for the A. W. A.'s board of directors to act on, "to fit the new situation." He said that speaking as an individual and not officially he had no doubt but that the A. W. A. would co-operate with the new association.

Several members declared that before they were willing to vote for a new association they would have to be convinced that it would offer them better advantages than they were already receiving as members of the A. W. A.'s sub-division, and that a new association should not be formed unless the household goods warehousemen were certain that through it they could obtain "larger national expression than at present." Opinion was expressed by others that it was doubtful whether the headway toward better legislation would be so rapid through a national association as it would be if the household goods sub-division of the A. W. A. continued to operate with the support of the merchandise and cold storage sub-divisions and the influence which these sections could

exert as units of a body already well established.

Other members thought better work on behalf of furniture warehousemen could be accomplished through a national association. It was at this point that the suggestion was advanced that the household goods sub-division could by a majority vote turn the A. W. A. into a national furnituremen's association.

It was brought out that the organization of a new national body might create some confusion, particularly among warehouses in the Middle West, for the reason that many warehousemen store both household goods and merchandise. It was conceded that warehousemen doing both kinds of business might feel obliged to belong both to the A. W. A. and to the new household goods association. The suggestion was made that some such arrangement as an interchange of directors might be effected.

One member declared that the policy of the A. W. A. a few years ago was to discourage all memberships except those representing warehouses storing the higher classes of merchandise; and that the A. W. A. did not begin to get into close contact with household goods warehouses until after agitation was begun looking toward the organizing of the household goods warehousemen. Other members asserted there were hundreds of furniture warehousemen who would join the new national association, although they had never become affiliated with the sub-division of the A. W. A.

When action favoring the national association had been taken, a member called out to Mr. Keenan, "How's that, Jim?" The A. W. A. president replied, "All right; we're good losers!"

During the New York meeting a small sensation was created when William T. Bostwick read a communication which he said had been received by an associate member on a letterhead of the "National Furniture Warehousemen's Association (Corporation)," this letterhead carrying the printed name of George H. Johnson as "1st Assistant Secretary." No one present had heard of this organization, and Mr. Bostwick said he had been unable to find "George H. Johnson" at the Broadway address given on the letterhead. The communication was addressed to The Thomas J. Stewart Company, a Jersey City associate member, and read:

"When in New York give a thought to the business of the National Furniture Warehousemen's Association. The concentrated thought and action of the best talent in the various State and city organizations is required. The warehouse industry must rapidly advance, expand and take its proper place in the world of affairs. Labor organizations are already internationalized. You will be called upon to generously contribute your council (*sic*), assistance and advice to broaden and enlarge your local, State and city organizations into a national organization."

The New Jersey association at its meeting on January 14 voted unanimously to indorse the White Sulphur Springs plan and recommended that all prospective members be obliged to join their local or State organizations before becoming eligible to membership in the new national body, provided such local or State organizations existed. A resolution was adopted to drop all associate members, provided other such associations did likewise.

PAY ROLL		
DAY WORK	MORNING IN	
	NOON OUT	
	NOON IN	
	NIGHT OUT	
	EXTRA IN	
NIGHT WORK	EXTRA OUT	
	NIGHT IN	
	MORNING OUT	
TOTAL TIME.....		
RATE.....		
AMOUNT.....		
DATE.....		



DAILY COST CARD		
No.		DATE.....
J. T. 1106		
NAME.....		
JOB No.	Time	Clock Time Record
	ON	
	OFF	
	ON	
	OFF	
	ON	
	OFF	
	ON	
	OFF	
	ON	
	OFF	

The time clock as an aid to

Analyzing Warehouse Labor and Handling Costs

"You pay for a cost system whether you have one or not."
—S. M. Woodson, retiring president of the Central Warehousemen's Club.

A TIME clock system of analyzing labor and handling costs in a storage plant was described by George Hamley, president of the Colonial Warehouse Co. of Minneapolis, at the Kansas City convention of the Central Warehousemen's Club. Mr. Hamley has had this method in operation at his own buildings, and he told why he believed every warehouseman should introduce it for purposes of efficiency and economy.

The time clock which Mr. Hamley uses is manufactured by the International Time Recording Co.—a machine which is known as a job time recorder. In explaining the system, Mr. Hamley had one of the clocks on a table near him, and he used the payroll and daily cost cards which are printed for sale with the clock.

"I bought two of these clocks for \$80 each," Mr. Hamley said.

[The present price for the latest model is \$100.]

"After I had installed them I told my employees about them—that through this system a record of the time done by each man would enable me to figure what my labor was paying—a record to show whether every man was giving a square deal, and which would enable me to pay for efficient work and to pay every man all he was worth. I gave them each a daily cost card and asked each man for his co-operation."

One clock was used by Mr. Hamley for the cost card system and the other as a payroll machine. In relation to the

former, to cite the illustration given by the speaker, every employee received a number. When Employee No. 1 came on duty in the morning he was ordered to unload flour from a Union Pacific car. He punched the card at the clock at 7 a. m. and placed the card in a rack nearby. It required two hours for him to unload the flour, and at the end of this period he again punched the card at the clock, leaving a record of his time of labor. Next he unloaded canned goods from another car, and similarly punched his card, the record showing it took him three hours.

"Six men were at work unloading these two cars," Mr. Hamley explained. "Their cards were turned in to the accountant at the end of the day, and the accountant made a permanent record that on that date it took six men two hours apiece, or twelve man-hours, to unload the flour; and that it took six men three hours each, or eighteen man-hours, to unload the canned goods. Here the accountants had the total tonnage and the daily wage of the men, and was able to extend the cost per ton for unloading the two cars. It was a record of productive labor."

Mr. Hamley explained how Employee No. 2, having a delivery ticket numbered 7856, punched in at 7 a. m. and started for an upper floor on an elevator to obtain fifty bags of rice; this he did, and delivered it to a teamster, and punched out at 7:15 a. m. Fifteen minutes then passed as idle time, and with a delivery

ticket numbered 7875 the same employee started on another similar errand.

"At night," the speaker went on, "we had a record of what that man did for \$5 as his day's pay. The accountant had a record that on that date Employee No. 2 consumed fifteen minutes in delivering fifty bags of rice. The records kept enabled us to know the total cost of delivery of goods in and out. We learned the total amount of idle time for this man between deliveries—a column was kept for every man and his idle time was tabulated.

"This went under non-productive labor. Soon the men were asking: 'How much idle time did I have yesterday?' They began to be afraid that idle time would impair their efficiency—and they began working to eliminate this idle time. This system produced efficiency, as every warehouse employee endeavored to employ all his time. He knew his record was being kept and was anxious to produce. He knew that while his own record showed forty-five minutes occupied for performing a certain job, the other fellow's time for the same job might be only fifteen minutes."

But the employees who took up forty-five minutes perhaps explained, Mr. Hamley said, that mice had bitten into the sacks of rice, or that mechanical trouble with the elevator had delayed him, and this served to call to the warehouse executive's attention, for the first time, a difficulty of which he might not

(Concluded on page 37)

Ohio Warehouse and Transportation Association

Formally Organizes with Plans to Establish Return Loads Bureaus

COLUMBUS, Ohio, Jan. 27—Plans inaugurated by the Ohio storage men who attended the Cincinnati convention of the American Warehousemen's Association were carried further along today when formal organization was effected of the Ohio Warehouse and Transportation Association. The meeting here, originally set for Jan. 20, was postponed to allow some of the household goods men to attend the convention of the New York Furniture Warehousemen's Association on Jan. 19.

About forty men representing warehouses and transfer and haulage companies attended the Columbus meeting, many Ohio cities and towns being represented. It was decided to start a membership campaign at once. A special committee on constitution and by-laws had been chosen at Cincinnati, and this committee submitted the draft of their work, this constitution being adopted after discussion showed the advisability of writing in a number of amendments.

The plan of organization provides for membership from every line of transfer and haulage industries. These include not only companies engaged in moving merchandise for warehouses but companies engaged generally in transporting milk, lumber, ice and other commodities. Wholesale groceries and other business interests which are engaged in transportation are invited to unite with the new body.

It is planned to open an office in Columbus, probably as permanent headquarters. One important feature of the early efforts will be the creating of a return loads bureau for long distance haulage. These will be established in the principal cities and towns of Ohio and will serve as clearing houses for long distance transportation. The first of these will be at Columbus, Cleveland, Cincinnati, Dayton, Mansfield, Canton, Akron, Toledo, Youngstown and Zanesville. Eventually the entire State will be organized in this way.

Another matter to be taken up is the question of employers' liability insurance or the methods of operation by the Ohio State Board of Awards, in connection with the employees' compensation insurance. Under Ohio laws private companies are excluded from writing employees' liability insurance, and rates for such insurance are made arbitrarily by the State Board of Awards. Many of the transportation people are of the

opinion that these rates and the methods of administration are unjust and discriminatory, and the new association will launch a campaign to effect desired changes. It is proposed to make the situation—unless relief is given by the Industrial Commission or by the State Board of Awards—a political issue at the election of members of the coming Ohio State Legislature.

Many instances have been cited where the compensation appears to be administered unjustly. One is that of a transfer man in a northern city who employed a man at 10 a. m. This man worked about two hours and then disappeared. Next day it was learned he was sick, and he claimed to have been injured while unloading a railroad car. Soon afterward the man died and the company was charged with approximately \$4,200 as the maximum death award. Later it developed that the cause of death was disease, but thus far,

it is declared, the Industrial Commission has not reopened the case. Several similar instances were cited by the members of the new organization and a vigorous movement would be started, it was stated, to get better treatment at the hands of the State authorities.

The officers chosen temporarily at Cincinnati were permanently elected to-day: President, William E. Hague, Columbus; vice-president, W. L. Smith, Cincinnati; secretary-treasurer, Edward Wuichet, Dayton; directors, A. H. Greeley, Cleveland; Charles S. Turner, Toledo; N. C. Cummins, Canton; W. Lee Cotter, Mansfield; Edward Wuichet, Dayton; W. L. Smith, Cincinnati; William E. Hague, Columbus.

The directors will soon be called together to name a special committee to have charge of establishing the return loan bureaus. Other special committees will be named to direct other lines of activities.

COMING A story of SPACE-SAVING IN WAREHOUSES

telling how the Government practised economy during the war through practical utilization of dunnage, and how this fundamental of thrift is adaptable to commercial storage plants, will be told in

the March issue of
DISTRIBUTION &
WAREHOUSING

by

George F. Shephard

(author of "Labor-Saving Machinery in Warehouses" which appeared in the November issue.)

Time Clock as Aid to Analyzing Costs

(Continued from page 36)

have learned otherwise. "These cost cards are a daily reminder that there are slacks in the warehouse," he said.

It was brought out through questioning that it was not arbitrary for the daily cost cards to be used—that the customary delivery tickets could be punched with the clock. Cost accounting was described by one speaker as "proper distribution of earnings and expenses." The discussion showed also that the time clock system enabled a warehouseman to figure out the entire cost of in and out handling of every commodity and the average cost of distributing any given product through every floor of a building—to find out which commodities were earning and which were losing money.

"The basis of cost accounting," said S. M. Woodson, "is defensibility. Every minute of an employee's time is either productive or non-productive. Against this has got to be entered costs. Storage rates are comparatively equitable, but accurate records should be kept on the labor and handling for every commodity in order to find out what the costs are. We'll all come to the balance cost system some day."

Editor's Page

Rates

IT is well that the acknowledged leaders in the warehouse industry recognize and preach the distinction between making rates and making a basis for rates. The distinction is a vital one. In practice it might conceivably represent the difference between prison and prosperity. Making rates would subject the warehousemen liable to prosecution under the Sherman anti-trust act.

Making a basis for rates is entirely justifiable and is not illegal. Once this basis is standardized, the storage man then may work out his own rates, regardless of what tariffs his competitor may file; and these rates may be either higher or lower than the other fellow's.

It is unfortunate that the distinction is too little understood in the industry. The fact that so many warehousemen do not understand is all the more reason why those who do compre-

hend should carry on propaganda work among those who are less enlightened.

Wherever storage executives have assembled during recent months to discuss bases for rate making there have been uninformed men who have urged flatly that definite tariffs be fixed under which all should operate arbitrarily. Wiser minds have dominated these meetings and there has been no single instance of action taken which any Federal or State commission could construe as an attempt to make rates.

The circumstance that there are yet intellects which have not come to know that there is danger in advocating uniform tariff building, is deplorable. Into these intellects should be injected a little common sense. Through the exercise of this healthy remedy the intricate task of standardizing bases for making rates would progress the more smoothly.

Eliminating Fire Hazards

From every man engaged in warehousing will be expected a full measure of support to the campaign begun by the National Board of Fire Underwriters to reduce the nation's fire menace.

An analysis of the advertising literature written by warehousemen shows that such statements as "we carry the lowest insurance in the city" are emphasized by many leaders in the storage industry. Elimination of fire hazards means reduced insurance rates.

When the inspectors representing the National Board of Fire Underwriters' conservation department call at the warehouse, the owner or the manager should give freely and frankly the information necessary to complete the questionnaire presented. When attention to fire hazards is called, these hazards should be removed willingly and immediately, without waiting for official pressure to be brought to bear.

The National Board of Fire Underwriters wants the constructive aid of the warehouse industry during the progress of this anti-hazard work. It is prepared to send representatives to the meetings of warehousemen to tell what is being accomplished and why it is being done. There will be many such meetings during the year, and these will furnish opportunities for co-operation in a great national movement; officers of associations in the storage industry should write to-day to the National Board of Fire Underwriters asking the Board to assign speakers.

The insurance fire losses in 1918 amounted to \$292,000,000 in the United States. There have been months when warehousing led all industries in fire losses.

Are you going to fail to support this anti-hazard campaign to reduce these losses?

Communicate with your insurance company to-day and pledge your co-operation!

A MESSAGE

To Industrial Traffic Managers

Who Distribute Through Warehouses:

Do you know that you are eligible to membership in a NATIONAL ASSOCIATION which is to be organized for the purpose of placing you in more intimate business contact with America's merchandise warehouse industry?

Industrial traffic managers who attended the Cincinnati convention of the American Warehousemen's Association in December have formed an advisory committee which is planning to call a NATIONAL CONVENTION of manufacturers' representatives who have relations with warehousemen.

The chairman of this advisory committee is Frank E. Jones, traffic manager of the Furniture Manufacturers' Association of Grand Rapids, Michigan.

Scores of traffic managers have indicated their desire to become members of the proposed NATIONAL ASSOCIATION.

The advisory committee's plan will be published in the APRIL issue of *Distribution & Warehousing*.

Meanwhile every traffic manager who is interested should place his name on file with Mr. Jones.

CHICAGO WAREHOUSEMEN MUST JUSTIFY TARIFFS

Public Utilities Commission Decides on Hearings—
Defensibility of Rates Is Issue—Massachusetts Cost
Accounting System Expected to Figure in Testimony
—Profiteering Charges Against Storage Executives

CHICAGO, Feb. 3—Warehousemen throughout the country are looking toward Chicago, where the storage industry is to-day in the throes of a rate controversy with the Public Utilities Commission of Illinois.

The Commission has called upon the warehousemen of Cooke County—nearly eighty men engaged in the merchandise, household goods and cold storage branches—to defend their rates on file with the State regulatory body.

Hearings are to be held during the latter part of February, at which the warehousemen will have either to justify their tariffs or operate, should the Commission so rule, at lower rates than are now being charged. The dates set for the hearings are Feb. 18, for the furniture warehousemen; Feb. 23, for the general merchandise warehousemen, and Feb. 25, for the cold storage warehousemen.

The legal battle to take place assumes national importance for the reason that the fixing of a basis for rates that shall be defensible upon investigation by any State or Federal commission, or any body of shippers, has in recent years been, and still is, one of the fundamentals of warehousing which the men who are leaders in the storage industry are endeavoring to have standardized. Such a basis for defensible rates would be arrived at after long efforts at cost of finding by the individual warehouseman.

Moreover, the national importance of the Cooke County controversy is emphasized by information received here that James F. Keenan of Pittsburgh, president of the American Warehousemen's Association, is personally coming to Chicago, in advance of the hearings, to confer with the warehousemen who are preparing their cases of defense before the Commission. According to reports received here, Mr. Keenan will come to Chicago to make a survey of the situation and to volunteer the services of the American Warehousemen's Association's Central Bureau which has been established at Pittsburgh in part for the purpose of spreading cost finding propaganda among warehousemen throughout the United States. It is understood here that, if Mr. Keenan deems it advisable, he will call to Chicago such students in cost accounting as John Nicols and S. G. Spear of Boston, C. A. Aspinwall of Washington, D. C.; W. T. Bostwick of Jersey City, N. J., and W. Lee Cotter of Mansfield, Ohio. All these men are familiar with the Massachusetts system of deriving a standardization of basis for rates—a system which the Government was about to adopt for a regulation of warehouses purposed just before the armistice was signed, but which was never put into operation because the close of the war no longer made regulations necessary. It is the Massachusetts system which was the pioneer of its kind in the warehouse industry, and the Government is understood to be considering it to-day for introduction into the war-time Army warehouses when those plants shall be turned over to commercial uses.

In preparing their defense the Chicago warehousemen have engaged attorneys and statisticians, and they have no apprehension as to the outcome of the investigation, which the industry as a whole—in other states as well as in Chicago—welcomes as an opportunity to disprove intimations of profiteering as published in a Chicago newspaper. The warehouse-

men believe also that they see here a chance to show an official regulatory body the value of the Massachusetts cost accounting system, which has been in operation in a few of the Chicago storage plants. It is understood that the Public Utilities Commission already has on file data showing how the Massachusetts system operates, and warehousemen here believe the hearings will go a long way toward giving constructive publicity to the Massachusetts method of finding costs. It is due partly to this conviction that the controversy is attracting more than ordinary attention.

The defense's case for the merchandising warehousemen is being prepared under the guidance of the Illinois Warehousemen's Association, and that of the household goods warehousemen through the Illinois Furniture Warehousemen's Association. The cold storage men, whose hearing is to be the last of the series, have no local association, and it is understood in this connection that Mr. Keenan upon his arrival here will offer co-operation as would enable the cold storage men to obtain such cost accounting cold storage warehouse information as is on file with Charles L. Criss, general secretary of the A. W. A. at the Pittsburgh Central Bureau. Meanwhile, the Massachusetts Storage Warehousemen's Association has offered what aid it can extend, and it has on file much cold storage data of value.

When the Chicago warehousemen were told to appear before the Public Utilities Commission late in January they were given questionnaires to fill out which must be filed with the Commission prior to the opening of the hearings. To illustrate the character of the information demanded in advance, the cold storage warehousemen are required to give detailed costs for each of the quarterly periods of 1919, regarding superintendence, fuel, labor for warehouse, labor for engine and boiler room, engine and boiler room supplies, power purchased, buildings and fixtures, equipment and accessories, chemicals, oil, water, salaries of general officers and clerks, office supplies, and all other operating expenses. The merchandise and household goods warehousemen were asked for similar information.

The cold storage men are planning to file with the Commission reports asserting that the present rates are not exorbitant and are lower than the rates in effect at this class of plant in other cities. Meanwhile, the merchandise and household goods warehousemen are understood to be obtaining tariffs published by storagemen of those classes in communities outside of Illinois, for purposes of comparison.

The present inquiry came about through what apparently was an act of indiscretion on the part of a Chicago household goods warehouseman. It is not long ago that these storagemen were permitted by the Public Utilities Commission to put a new tariff into effect, allowing them higher rates. The indiscreet warehouseman sent word out to his customers explaining the advances that his new tariff was in conformance with the Commission's orders. This communication came to the attention of the Commission, which is said to have interpreted it as an attempt by the author to place a blame upon the Commission for allowing increased rates, whereas the

(Concluded on page 52D)

FROM THE LEGAL VIEWPOINT

By George S. Kaiser

George F. Kaiser is a practicing lawyer who makes a special study of warehousing and transfer affairs. Service given in these pages is free. DISTRIBUTION & WAREHOUSING cannot agree to answer all questions, but will do so as far as is possible.

Carrier's Right To Collect For Underpayment On Freight

SINCE writing an article, which was published in *Distribution & Warehousing* several months ago, regarding the right of a carrier to collect for an underpayment on freight, I have received numerous letters and inquiries from subscribers.

As this subject is of such general interest to all who have business dealings with carriers, I wish to call attention to the following opinion in the case of *L. & N. R. Co. vs. McMullen*, reported in *Five Alabama Appellate Court Reports* on page 662.

1. The appellee, desiring to have 250 crates of oranges, weighing 80 lbs. each, or in the aggregate 20,000 lbs., shipped to him from Orlando, Fla., to Greenville, Ala., applied to the general freight agent of the appellant for information as to the freight rates on said oranges from Orlando to Greenville. The general freight agent replied that the rate was 75 cents per hundred, or in the aggregate \$150.00. Thereupon the appellee, relying upon the statement of the said agent as to the freight rates, ordered the oranges. They were shipped to him and the Seaboard Air Line Railroad Co., the initial carrier, delivered the oranges to appellant, the connecting carrier at Montgomery, Ala., and the appellant in due course of business transported the oranges to Greenville, Ala., and there delivered them to the appellee. When the oranges were delivered the appellee paid to the appellant the above sum of \$150.00 as the freight due on the oranges, and the same was accepted by the appellant as the full amount of such freight.

Two or three days after the oranges had been delivered to appellee and the freight paid, as above stated, it was discovered by appellant that in quoting the freight rate to appellee, the general freight agent of appellant had made a mistake of \$22.50 against the appellant, in that the sum of \$150.00 was \$22.50 less than the regular tariff rate as filed with the Interstate Commerce Commission, from Orlando, Fla., to Greenville, Ala., by the Seaboard Air Line Railroad Co. and appellant and as published by said Seaboard Air Line Railroad Co. and appellant, and that when appellant delivered to appellee the oranges and accepted the \$150.00 as freight it had by

mistake accepted \$22.50 less than it should have collected under the regular tariff rate filed with the said Interstate Commerce Commission.

Thereupon the appellant called upon appellee, stated to him the above facts, demanded that he pay the said \$22.50 to appellant, but the appellee denied liability for the same and this suit was brought to recover said amount.

That the appellant's agent, in quoting the freight rate to appellee as \$150.00 on the oranges, and that the appellant's agent in accepting \$150.00 as freight made an honest mistake, there is no doubt. There was, as is shown by all evidence, no intention in this transaction, on the part of appellant or of any of its agents or of the appellee to evade or in any way violate any of the provisions of the Interstate Commerce Laws. The tariff rate is filed with the Interstate Commerce Commission by the Seaboard Air Line Railroad Co. was on the oranges 45c. per box of 80 lbs. each, from Orlando, Fla., to Montgomery, Ala., or a rate of 56¼c. per hundred lbs., between the two points of the appellant, from Montgomery to Greenville, of 30c. per hundred lbs. In quoting the rate and in collecting the freight, the appellant, by mistake, computed the freight from Orlando to Montgomery at 45c. per hundred instead of at 56¼c., as it should have done, and this made, by a mistake in calculation, the rate of 75c. per hundred instead of 86¼c. per hundred from Orlando to Greenville, and for this reason appellant quoted and received \$22.50 less than should have been quoted and received. That the mistake occurred has been indicated is manifest as a necessary deduction from the agreed statement of the facts.

In the case of *A. J. Poor vs. Chicago, Burlington & Quincy R. R. Co.*, et al., 12 Inst. Com. R. 418, the Interstate Commerce Commissions, through Harlan, Commissioner, said, "Stability and equality of rates are more important to commercial interests than reduced rates. It was instability and inequality that were the special evils to be remedied; it was the possibility that one shipper, in one way or another, whether by mistake or otherwise, could, and actually did, get a lower rate than another shipper that led to more stringent legislation in this

respect; the published rate has become a protection to shippers and to carriers alike. Regardless of the rate quoted or inserted in a bill of lading, the published rate must be paid by the shipper and actually collected by the carrier. While shippers rely largely upon the rates quoted by freight agents and billing clerks, the law charges them with knowledge of the lawful rates, and they will not be heard before this Commission to claim the benefit of a lower than the lawful rate on the ground that some railroad clerk has made a mistake in quoting a lower rate for a particular shipment. To permit shippers to impute negligence to carriers in quoting rates instead of paying the lawfully published rate, would open a broad and ample way for the payment of rebates and for other unlawful practices, and might in its practical results work a repeal of the essential features of this legislation." *Poor vs. C. B. & Q. R. R. Co.*, et al., 12 Inst. Com. R. 418.

In the case of *So. R. Co. vs. Harrison*, 119 Ala. 539, 24 South 552, 43 L.R., A. 385, 72 Am. St. Rep. 936, the Supreme Court, through Brickell, C. J., said that, as the contract for the transportation of an interstate shipment at less than the published rate approved by the Interstate Commerce Commission is invalid, the carrier may collect the rate as published, regardless of the rate fixed by the bill of lading.

In the case of *Armour Packing Co. vs. U. S. 209*, U. S. 56, 28 Sup. Ct. 428, 52 L. Ed. 681, the Supreme Court of the United States declared that the tariff rate, when fixed and approved by the Interstate Commerce Commission and published as required by law, is read in the contract of affreightment and becomes a part thereof. *Armour Packing Co. vs. U. S. 209*, U. S. 56, 28 Sup. Ct. 428, 52 L. Ed. 681.

It is evident from the opinions of the Interstate Commission in the above case of *Poor vs. C. B. & Q. R. R. Co.*, and of the U. S. Supreme Court in the above case of *Armour Packing Co. vs. U. S.*, that it is an established purpose of the Federal Government to require common carriers to collect, and shippers or consignees to pay, on all shipments governed by the Interstate Law, the exact amount covering such shipments as is fixed by the schedule of rates filed with and approved by the Interstate Commerce Commission and published as required by law, and that the Federal courts will permit no defense to an action instituted by a common carrier engaged in Interstate Commerce to recover by a shipper or consignee the

exact amount of its lawful freight charges, provided such defense presents a possible method by which the terms of the Interstate Commerce Law may be evaded.

It is apparent that if, by reason of the alleged negligence or mistake of an agent or a carrier in furnishing to a shipper a lower rate for an Interstate Shipment than the rate filed and provided by the Interstate Commerce Commission, the shipper is permitted to pay and actually pays such lower and unauthorized rate, and the courts in an action by said carrier against said shipper for the difference in the amount which he should have received in the lawful rate and the amount it actually received, refuses to allow the carrier to recover such amount because of the voluntary acceptance of such agent of the illegal amount, a wide door would be thrown open for an invasion of law which was called into existence for the protection of shippers from unjust and ruinous discriminations at the hands of carriers engaged in Interstate Commerce. Under the law, appellee demands that appellant, when it delivered the freight, was clothed with the authority to demand of the appellee \$172.50 instead of \$150.00 and to hold the freight, by virtue of its lien, until the \$172.50 was paid in spite of the mistake of its general freight agent in quoting to appellee the rate of \$150.00. *So. Ry. Co. vs. Harrison supra.*

Under the terms of the Interstate Commerce Law, however, as these terms have been construed by the Federal courts—the construction placed upon that law for the purpose of preserving it in its efficiency and rendering it a potent factor in protecting shippers from unjust discriminations at the hands of those engaged in Interstate Commerce—a carrier may recover the legal rate due it on an Interstate shipment although an agent may make a mistake as to the amount due under the legal rate and, therefore, through such mistake, delivered the freight to the consignee upon the payment of less sum than the legal rate. *Poor vs. C. B. & Q. R. R. Co. supra.*

Of course, the rule that where one with full knowledge of all the facts accepts in payment of a debt a less amount than the sum actually due him, he will not be permitted afterwards to claim the balance not paid, is familiar. The rule that money voluntarily paid with full knowledge of all the facts, can be recovered back, is also familiar, as is that other rule that when an illegal contract is executed and the parties are in *pari delictus*, the law will not interfere between them. It is, however, evident that it is the purpose of the Federal courts, into whose keeping the Interstate Commerce Law is peculiarly committed because it is a Federal law and governs matters resting peculiarly within the police powers of the Federal Government, to refuse to permit the oversights, the blunders, or mistakes of the clerks or agents of those engaged in Interstate Commerce, upon the above grounds to preclude the carrier from collecting, in

case of underpayment, the actual amount due on an Interstate shipment or shipper or consignee, in case of overpayment, from the collection of the amount overpaid.

In the present place, as a mathematical calculation will demonstrate, the freight rate quoted and the amount collected, viz., \$150.00, was due to a mistake of appellant's agent or agents in calculating from a published schedule the amount of the freight. As we have already stated, the manner in which the mistake occurred is apparent. The agent simply computed the freight on the 250 boxes, aggregating 20,000 lbs., at 30c. per hundred from Montgomery to Greenville, and at 45c. per hundred from Orlando to Montgomery, overlooking the fact that the rate of 45c. from Orlando to Montgomery was the rate on oranges in boxes of 80 lbs. instead of in boxes of 100 lbs. While the general rule of law is, as above stated, that when, with full knowledge of the facts, a creditor accepts from his debtor less than the amount due him, he will not afterwards be heard to complain, full knowledge of the facts is one thing, but merely having the means of ascertaining the real facts is an entirely different thing. Having the means of ascertaining the real facts is not tantamount to actual knowledge of them. In the present case the appellant's agent, acting probably upon the statement in the bill of lading that the rate was 75c. per hundred from Orlando to Greenville had, in the published rates, the means of ascertaining what was the true rate. It is not claimed that he actually knew of this error until after the appellee had paid the freight and had received the oranges. All the parties in this transaction acting in good faith, and the above being an irresistible inference from the testimony, the appellant's agent, while possessing the means of ascertaining all the facts, did not in fact know the actual freight rate when he accepted the appellee's money, and delivered the freight, and upon this consideration alone the appellant was entitled to recovery.

Responsibility for Fire Damage

Editor, DISTRIBUTION & WAREHOUSING: Will you kindly answer for us the following question, if possible?

We received from one of our customers a shipment of 15 bales of cotton waste to be trucked from Fall River to New Bedford. On the way over to New Bedford the load was damaged considerably by fire, and we are unable to find out the cause of the fire. The damages caused amounted to \$600, and our customer has deducted this amount from our invoice. Kindly advise if he is legally right to do this. We would like to know whether we should have insured this load or whether the party who owns the goods should have insured the same.—K. S. C., Fall River, Mass.

ANSWER: Your liability in this particular case of course depends upon your status at the time you were doing this work. Warehousemen, as such, are only required to use ordinary care, and in the

absence of an agreement to insure need not insure if insurance is not charged for or if there is no general custom to insure among the trade in their immediate vicinity. When goods are being transported to or from a warehouse, the warehouseman is not responsible except for negligence on his part, just as when the goods are stored in his warehouse. Express and transfer companies are generally held to be common carriers, as are cartmen, draymen, truckmen, lightermen and transportation companies. Forwarding agents who take the custody of goods for transport are also held to be common carriers, but if they do not receive the goods but merely contract as the shipper's agent for transportation by a carrier, they are not liable as such.

Of course, if you have no especial route, but merely rent out your vehicle by private contract each time someone wants something transported, you are then not liable as a carrier, and would not be held as an insurer of the goods while in your care. It is difficult to answer a question of this kind without being in possession of all the facts and familiar with the circumstances concerning the loss. My impression would be that the deduction was improper and that you are not responsible, and my advice to you is to put the entire affair in the hands of local counsel at once.

Bank Acceptance Guaranty

Editor, DISTRIBUTION & WAREHOUSING: If it is possible to do so, we would appreciate very much your giving us a little advice on the following matter:

If, after a bank has made an acceptance on stored goods, it exchanges warehouse certificate for a trust receipt which is in the form of an acceptance guaranty, can the bank recover back the goods in case the contract is violated?—A. H. Co., Cleveland, Ohio.

ANSWER: The person to whom the receipt has been delivered can claim the property in a case of this kind, and the warehouseman should not surrender it except in exchange for a receipt issued against the goods. The bank, on the other hand, must rely upon its acceptance guaranty.

N. Y. Cold Storage Meeting

ROCHESTER, N. Y., Jan. 31—The New York State Cold Storage Association will discuss cost accounting at the meeting here on Feb. 18. Charles L. Criss of Pittsburgh, general secretary of the American Warehousemen's Association, has been invited to speak on the cost accounting campaign of that organization; and this campaign will be explained by J. R. Shoemaker of Elmira, N. Y., who is identified with the cold storage subdivision of the A. W. A. F. M. Shoemaker, president of the New York Association, will be chairman at the meeting.

COMING

An article on the value of fire doors in warehouses.

READERS' FORUM

DISTRIBUTION & WAREHOUSING will welcome receipt of letters from men in the warehouse and distribution fields who have something worth while to say for the benefit of others. Communications of this character should be addressed: Readers' Forum, Distribution & Warehousing, 239 West 39th Street, New York City

A FEDERAL TAX RULING

New York City, Jan. 2, 1920.

Distribution & Warehousing,
Class Journal Co.,
239 West 39th Street,
New York City.

Gentlemen:

Numbering among our clients several large warehouses, we were requested a number of months ago for advice as to the effect of Section 500 of the Revenue Act of 1917 upon their business, particularly with reference to items comprising a storage charge on merchandise placed in warehouse by railroad company after arriving at destination and at the expiration of the free period allowed by the railroad. At that time we advised our client that, in our opinion, under the circumstances mentioned, the storage charges were not subject to tax. Being subsequently advised that some warehouses in the city were charging and collecting the amount of this tax upon the amount of their warehouse charges, we applied to and obtained a ruling from the Treasury Department, Commissioner of Internal Revenue, and thinking perhaps the same may be of some benefit to your readers, we take the liberty of subjoining herewith the substance of this ruling. The nature of our inquiry is explained by the answer received from the Treasury Department, which in part follows:

"You state that your client is engaged in the general warehouse business in the City of New York; that it receives merchandise from railroads entering New York for storage after the expiration of the 48-hour free period granted by the railroads and that this storage is for the account of the consignees of the merchandise:

"First, you inquire whether the cartage charge from the railroad pier to the warehouse is taxable if (a) performed by the warehouse and (b) by the railroad company.

"Second, are any part of the charges accruing to the warehouse company, including labor in handling in and out of the warehouse, storage charges proper, recooling or repacking, subject to the tax?

"Third, are the freight charges advanced by your client to the railroad company subject to tax?

"In general, it may be stated that if the shipments handled by your client have reached their destination, the charges for its services are not subject

to tax, but if the shipments are merely in transit and the storage and other facilities furnished by your client are merely incidental to the movement of the property to final destination, the tax would apply.

"Assuming that the shipments have reached their destination when they are delivered to your client the questions submitted by you may be answered in the order given, as follows:

"First: Cartage charges, if the services were performed by your client,

would not be subject to tax; if performed by the carrier, the tax would apply.

"Second: The charges accruing to your client for warehousing, labor, storage and repacking or recooling, would be exempt.

"Third: The freight charges covering these shipments are clearly subject to tax unless the shipments are exempt by reason of exportation, governmental use, or otherwise."

Yours very truly,

POMPAN, PRICE & LIPPMAN,
Counselors at Law.

WAREHOUSE CARDS ARE READY

Security Storage Company,
Washington, D. C., Nov. 24, 1919.

Distribution & Warehousing,
239 West 39th Street,
New York City.

Dear Sirs:

As you probably know, a number of years ago this company got out a cabinet containing cards of various warehousemen throughout the United States. That supply was soon exhausted, and early in 1917 we arranged with a number of warehousemen that if they would send us the necessary money we would have the cards printed, supplying the cabinet ourselves and issue these cabinets to the new members of the several associations of which we are a member. Our entrance in the War made us put

aside this work until the present. These cards are now being printed, and as soon as they are supplied, the work of compilation will be started.

We are writing you in reference to this, in the hope that you will place an announcement in your magazine that such warehouses as have not taken advantage of the opportunity of supplying cards and now desire to do so—can now send us 400 of their business cards, size 3 by 5—we will be very glad to include them in our next edition of cabinets. Of course, you understand this offer is limited to the members of the American, New York, Illinois Southern and Central Warehouse Associations.

Thanking you in advance, we remain,

C. W. PIMPER,
Vice-President and Treasurer.

HISTORICAL SURVEY OF THE WAREHOUSE

(Continued from page 9)

to the development of the warehouse in the United States, where in only one branch has it reached a higher degree of perfection than abroad.

The second and concluding part of Mr. Moores' article will appear in the March issue of DISTRIBUTION & WAREHOUSING. It will deal with "Types of Warehouses"—merchandise, household goods and furniture, implement storage and trans-

fer, cold storage, port and railroad, and special.

Other Articles by Mr. Moores Are to Appear During the Year

Trieste Storage Facilities

Vice-Consul O'Hara at Trieste has informed the Department of Commerce, Washington, that the Chamber of Commerce of Trieste has given assurance that sufficient storage space could be put at the disposal of American exporters in the local free port, and that 800 tons of goods daily can be discharged without difficulty.

COMING: Articles on distribution by motor trucks.

FOODSTUFFS IN PENN. WAREHOUSES DECLINE

PHILADELPHIA, Jan. 19.—With the exception of eggs, foodstuffs in cold storage in Pennsylvania on the first of the year showed a marked decrease over the amount on hand Jan. 1, 1919, according to the report of the Director of Foods of the State Department of Agriculture. A notable decrease in the quantity of meats and fish in storage, as compared with former years, is shown in the reports of the holdings of the seventy-one cold storage warehouses in the State or Pennsylvania.

More than 15,000,000 dozen eggs were reported in storage three months ago, but on the first of the year this amount had been reduced to 4,309,420 dozen, as compared with 2,179,239 dozen in 1918. A slight increase is reported in eggs out of shell, the figures of 912,000 coming close to setting a new record.

Butter holdings in storage dropped from 7,390,839 lb. three months ago, to

2,902,142 lb. Two million pounds of poultry has been placed in storage within the last three months, probably due to the high prices charged at Thanksgiving and Christmas, but the amount on hand is still 750,000 lb. short of last year. The report shows the following storage holdings and the comparison with last year:

	Jan. 1, 1920	Jan. 1, 1919
Eggs out of shell (pounds)	912,500	741,254
Butter (pounds)	2,902,142	3,269,294
Poultry (pounds)	3,113,137	3,855,582
Eggs in shell (dozens)	4,309,420	2,179,239
Fish (pounds)	2,388,720	4,124,359
Beef (pounds)	1,743,241	4,692,833
Pork (pounds)	1,616,967	3,237,480
Veal (pounds)	403,176	228,503
Mutton (pounds)	302,102	634,095

To Build Coast Warehouse.

Portland, Ore., Jan. 10.—Work on Portland warehouse of Montgomery Ward & Co., Chicago, is to start at an early date. When completed the plant will cost about \$5,000,000. The first unit will cost \$1,350,000.

\$75,000 TERMINAL WAREHOUSE IS BEING ERECTED AT JOHNSTOWN, PA.

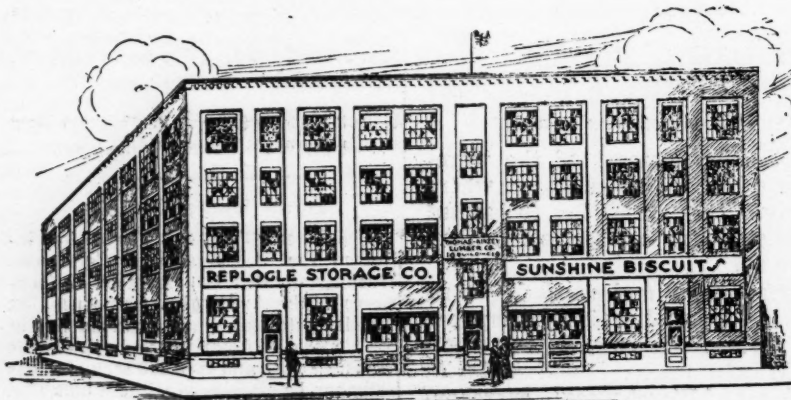
JOHNSTOWN, PA., Jan. 7.—A terminal warehouse, which will be the largest of its kind in Johnstown, Pa., is in course of construction and will cost, it is estimated, \$75,000. It will be occupied by the Replogle Storage Co. and the Loose-Wiles Biscuit Co.

The warehouse will be four stories high and occupy a plot 150 x 120 ft., the building taking up all this space except a 14-ft. allowance in the rear for the siding of the Baltimore and Ohio Railroad. The new structure will have 59,654 sq. ft. of floor space, or somewhat more than one and one-third acres. The entire building will be of brick and steel.

Half of the first floor will be used by the Replogle Storage Co., as will all the space on the three upper floors, the remaining half of the first floor to be used by the Loose-Wiles Biscuit Co. I. D. Replogle, owner of the Replogle Storage Co. business, for the last twelve years

has occupied the Hager Building, but recently found the place inadequate to meet the demands of the trade. Several other structures were rented by Mr. Replogle, but all combined proved insufficient, so arrangements were made with the Thomas-Kinzev Lumber Co. for space. The storage company will have 36,570 sq. ft. of floor space. The half of the first floor will accommodate the general offices of the company and the shipping and receiving departments, affording 6,095 sq. ft.

In the rear of the new building, which is 106 feet deep, is the private railroad siding of the B. and O., coming so close to the walls that cars may be unloaded directly through the massive doors specially designed for that purpose. The proximity of the siding obviates the necessity for unloading platforms, allowing the space that would be given over thereto for the interior of the building.



As the new Johnstown warehouse will look when completed. It will have B. & O. R.R. terminal facilities

WEATHER AFFECTING WAREHOUSE STOCKS

Distribution by Michigan Furniture Manufacturers is Curtailed by Resultant Car Shortage

GRAND RAPIDS, Mich., Jan. 22.—Warehouses throughout the Eastern States which are accustomed to store the products of members of the Furniture Manufacturers' Association of Grand Rapids have suffered heavily during the past two weeks because of the car shortage situation, which has been due to the adverse weather situation. Advice received here to-day from regional directors of railroads and from Federal officials in Washington indicate there can be no material improvement until climatic conditions grow better.

Ordinarily about thirty-five freight cars a day are required to accommodate the goods distributed by the Grand Rapids furniture manufacturers, and about fifteen are needed daily at the warehouse conducted by the Furniture Manufacturers' Association. To-day fourteen cars were at the warehouse but the average number in recent days has been three or four, and there is no expectation here that the normal number will be reached for many days.

The local furniture manufacturers are suffering for two reasons—first, because of a railroad embargo to eastern territory; and second, because a Federal order has taken many freight cars from Michigan and shunted them to the west and northwest. Telegrams to Washington have not relieved these situations, and Frank E. Jones, traffic manager for the Association, has gone to New York in an endeavor to make railroad officials understand the seriousness of the situation. One industry has closed down here and others are threatened with suspension unless relief is assured. This would further deplete furniture stocks in eastern warehouses.

Steel Distribution Warehouse

ST. PAUL, MINN., Jan. 10.—Erection of a distributing warehouse by the Concrete Steel Co. of New York, manufacturers of reinforcing steel, is expected to be completed by spring. It will be located at Berry Avenue and Territorial Road and will serve as a distributing center for the Northwest. The site was purchased by L. M. Barnett and C. A. Lord, company representatives.

Factory Remodeled Into Warehouse

BINGHAMTON, Jan. 13.—The Western New York Storage Warehouse has taken over the Sturtevant-Larabee factory plant in Charles street and has remodeled it for use as a storage warehouse for flour, feed, hay, groceries, automobiles and other commodities. The business is in charge of J. S. Downey, who comes from Scranton, Pa.

COMING: Articles on warehouse fire hazards.

CONTROVERSY OVER WAREHOUSE INSURANCE

State Board Objects to Rate Written by Van Owners—Annual Meeting of N. Y. Furnituremen

NEW YORK, Jan. 19.—Insurance, profiteering, bills of lading, motor truck transportation, labor, cost accounting—these were a few of the subjects touched upon at the annual meeting of the New York Furniture Warehousemen's Association here to-day.

The report of Ernest H. Milligan as chairman of the committee on insurance disclosed that a rate controversy exists between the Van Owners' Mutual Indemnity Company, organized by the Van Owners' Association of New York, and the rating board of the Insurance Department of New York State.

The Van Owners' company has signed up employers who employ a total of more than 2,500 persons and has written insurance to cover these employees but at a rate which, according to Dr. Milligan's report, is claimed by the State to be illegal. The State declares that \$4.81 is the legal rate. "There is a controversy over this," the committee's report says, "and we do not expect a final decision until after March 31." The report continues:

"While this appears to be a very large rate, and experience of the various warehouses seem to bear it out, the benefit of our company appears more apparent when we realize that we will be able to return to our members the difference between what our insurance actually costs us and what we pay, instead of it being retained by the stock companies. Thirty days after we receive the rate we can start actually writing policies."

The committee reported that "the most impressive feature" of the general insurance situation was that fire insurance rates did not increase during 1919. Pointing out that, because of increased real estate values, landlords, merchants and manufacturers had increased the amount of their insurance on an average of 25 per cent, the committee said:

"It would be well for the members of this association to consider as to whether their insurance is kept up to the present-day increased values. It is important that insurance should be kept up to the reproducible value, and it is well also to remind your customers of this."

The report expressed opinion that compensation insurance rates would be reduced during the coming twelve months.

Walter C. Gilbert in his report as retiring president called attention to the term "moving profiteer" as mentioned sometimes in newspapers, and warned that legislation would be enacted to regulate the price of moving. He urged co-operation with electric, gas and other public utility companies to bring about several moving days during the year, instead of one as at present. General prospects were bright, he said, with warehouses filled to-day and the owners receiving good prices.

The report of Charles S. Morris, secretary, showed 291 members on Jan. 1. Mr. Morris urged a program of industrial betterment to eliminate radicalism and promote Americanism.

William T. Bostwick as chairman of the uniform methods committee said great care should be exercised in the wording of newspaper advertisements in order to give careful descriptions of goods. Mr. Bostwick read his plan for a cost account system for household goods warehouses—the plan which he presented at the convention of the American Warehousemen's Association and which was presented in full in the January issue of *Distribution and Warehousing*.

In his report as chairman of the transportation committee Louis Schramm urged that owners of motor trucks organize to avert increased license fees. He read statistics showing that the motor truck is rapidly displacing the horse. Mr. Schramm said bills of lading should be more carefully watched, to assure goods reaching destinations.

Reporting for the committee on labor, Walter C. Reid said the members should endeavor to find means to keep laborers employed the year round, in order to promote satisfaction among employees.

John G. Neeser, discussing leasing, said he had learned that realty brokers were endeavoring to get the indorsement of land owners to have more than one moving day a year, and that the Allied Building Trades and the unions generally were in favor of this plan. Ralph J. Wood of Chicago reported that hereafter there would be four moving days a year in that city, instead of two.

Grant Wayne, retiring treasurer, was elected president; William T. Bostwick, vice-president; and Charles S. Morris was re-elected secretary.

Darwin S. Hatch Dies

CHICAGO, Jan. 25.—Darwin S. Hatch, managing editor of *Motor Age*, died of pneumonia at his home here after a brief illness. He had been associated with the editorial department of *Motor Age* from Oct. 1, 1909, at which time he entered the technical work as editorial writer. Three years ago he assumed the position of managing editor.

During his ten years' service with *Motor Age* he was one of the active spirits of motoring in the Middle West. He served for many years as secretary of the Midwest Section of the Society of Automotive Engineers; during the past year he was secretary of the Chicago Automobile Club, and for virtually ten years had been closely identified with the motoring contests of all character, generally handling the technical end of that work. Mr. Hatch was an engineering graduate of the Purdue University and a native of Kentland, Ind.

PHILADELPHIA, Jan. 24.—A contract has been awarded for the erection of a warehouse for H. O. Wilbur & Sons, Inc., Philadelphia, on the west side of Broad Street, south of New Street at a cost of \$275,000.

CHAMBERS INTERESTS ARE REORGANIZED

With New Capital, Will Continue as Arizona Storage and Distributing Company

PHOENIX, ARIZ., Jan. 6.—Incorporation papers were filed here yesterday by the Arizona Storage & Distributing Company which has taken over the Chambers Transfer & Storage Company of Phoenix and will continue the business under the new name, and with new capital and added facilities.

Organized but four and a half years ago by Henry Chambers, the business has been a remarkable success and on several occasions new buildings and increased working forces have been necessary to meet the demand. But the developments of the past twelve months have been even more rapid and in order to care for this extraordinary growth, and for the new business that is in sight, the reorganization in the company was decided upon.

Henry Chambers, who has been intimately connected with the company in the past, will continue with the new company as vice-president and general manager. The purpose of the new organization is to engage in every kind of business that the Chambers Transfer & Storage Company has in the past.

The new Arizona Storage & Distributing Company is one of the very strongest financially in the Salt River Valley and the southwest. The incorporators are: Thomas C. McReynolds, director of the Valley Bank, and president of the Western States Security Company; Edgar L. Apperson, head of the Apperson Automobile Co.; Henry W. Chambers, president and general manager, Chambers Transfer & Storage Co.; Theodore G. McKesson, secretary and treasurer Chambers Transfer & Storage Co.; Thomas C. McReynolds, Jr., son of Thomas C. McReynolds, Sr., banker and rancher.

With the incorporation of the new company comes the announcement that it is to erect a fireproof bonded warehouse of large proportion and of a character not to be excelled in any city in the country. Land on which the new warehouse is to be built already has been purchased, it is announced.

Great Northern Warehouses

SYRACUSE, N. Y., Jan. 10.—The new warehouse of the Great Northern Warehouses, Inc., under construction in West Fayette Street, will soon be opened for storage of merchandise and household goods. Advantages of the building as a distributing center in Central New York State will be pointed out to manufacturers so that it may come into general use for that purpose. A feature favoring this work is its adjacency to the New York Central and Lackawanna terminals.

COMING: Articles on warehouse labor saving devices.

8 WAREHOUSES JOIN NATIONAL ASSOCIATION

PITTSBURGH, Jan. 20—Changes in membership of the American Warehousemen's Association are announced by Charles L. Criss, general secretary of the association, as follows:

New members: Cotton Concentration Co., pier No. 41, Galveston, Tex., affiliated with the general merchandise sub-division. The concern is a Texas corporation, the officers being George Sealy, president; R. M. Smith, vice-president. It handles all kinds of merchandise except cold storage goods, and specializes in cotton. In addition to its concentration sheds the company has recently leased from the Galveston Wharf Co., pier No. 41, a double-deck structure 1250 ft. long and 300 ft. wide, said to be one of the finest in the country.

Southwest Warehouse Co., Inc., Nineteenth and Campbell streets, Kansas City, Mo., affiliated with the general merchandise sub-division. The concern occupies fireproof buildings in Kansas City containing 500,000 sq. ft. of floor space, trackage, etc. They have been engaged for five years in handling general merchandise.

Union Terminal Warehouse Co., of Union and Ionia streets, Jacksonville, Fla., affiliated with the general merchandise sub-division. The business is handling general merchandise and distribution, including rental of space to jobbers and manufacturers and has been established seven years. Its buildings contain 368,000 sq. ft. of floor space, railroad trackage, etc. Officers are Harry B. Hoyt, president; Horace C. Avery, general manager, and John A. Fox, treasurer.

San Francisco Storage Co., 965 Sutter street, San Francisco, affiliated with general merchandise and household goods sub-divisions. Under management of H. M. Goldberg, president. Business: general warehousing, packing, shipping, etc., and handling and distributing for eastern houses.

Continental Warehouse Co., 434 West 12th place, Chicago, affiliated with general merchandise sub-division. Handles general merchandise. Has 100,000 sq. ft., with trackage. Scott C. Robinson is president; Edgar R. Robinson, secretary, and F. H. Tinsley, treasurer.

Monarch Transfer & Storage Co., 31st street and Michigan avenue, Kansas City, Mo., affiliated with household goods sub-division. Stores and handles household goods. Daniel P. Bray is president and general manager, and A. V. Cresto, secretary and treasurer.

Minneapolis Transfer & Warehousing Co., 15 N. 7th street, Minneapolis, affiliated with household goods sub-division. Handles general merchandise, household goods; and engaged in transferring, forwarding, etc. Under management of F. E. Lamson, president and manager.

Crandall Transfer & Warehouse Co., 410 N. 7th street, Moline, Ill., affiliated with general merchandise and household goods sub-divisions. Engaged in handling general merchandise and household goods, and in teaming, etc., with ware-

houses and trackage along 3d avenue. The Omaha Cold Storage Co., Omaha, Neb., has resigned from membership. The Seehorn Storage & Transfer Co., Spokane, Wash., has been dropped from membership.

Exhibition Building for Storage

CLEVELAND, Jan. 3.—Demand for warehouse space is so great in Cleveland that the unused buildings of the Forest City Livestock & Fair Co., at North Randall have been leased at \$20,000 a year rental and will be used for dead storage. Railway switches running to the park will enable merchants to have storage shipments sent there direct. The Government recently relinquished 100,000 sq. ft. of storage space at the grounds.

The Sherrieff Street Market & Storage Co. is to erect a \$1,000,000 cold storage plant of twelve stories, adjoining its present plant.

MINN. ASSOCIATION OPENS HEADQUARTERS

MINNEAPOLIS, Jan. 14—The Minnesota Warehousemen's Association has opened offices at 732 McKnight Building with George A. Rhame in charge as secretary. This will be a clearing house for the members, who include about thirty-five of the leading storage owners in the State, located chiefly at Minneapolis, St. Paul and Duluth.

Mr. Rhame will handle correspondence, answer inquiries from warehousemen and business interests generally, and look after the minutes of the merchandise, cold storage and household goods divisions of the association, these minutes to be printed after each meeting and circulated among the members.

Bi-monthly meetings are being held, each preceded by a dinner. Features of these gatherings from time to time will be the presence of traffic managers who distribute through warehouses. W. W. Morse, head of the Security Warehouse Company of Minneapolis, is president of the association.

Mr. Rhame announces that his services are at the disposal of the members of all other warehousemen's organizations who may desire to keep in touch with warehouse conditions in Minnesota.

Distribution Warehouse

LONG ISLAND CITY, N. Y., Jan. 20.—The new warehouse of the Transport Service, Inc., in Long Island City, has been thrown open and is now the seat of active warehousing and distribution for the company. There are six floors, each of which has excellent display facilities.

Terminal Project

FAYETTEVILLE, N. C., Jan. 15.—Citizens of Fayetteville have voted for the issuance of \$75,000 of municipal bonds for the construction of terminal facilities on the river front. This action was taken so river traffic might be resumed with the completion of the canal at Cape Fear.

SOUTHERN ASSOCIATION WILL CONVENE FEB. 10

JACKSONVILLE, Fla., Jan. 23—The sixth annual convention of the Southern Furniture Warehousemen's Association will be held here on Feb. 10, 11 and 12. T. F. Cathcart, of Atlanta, secretary-treasurer of the Association, was in Jacksonville recently and arranged with the management of the Hotel Seminole to care for from sixty to one hundred delegates at reasonable rates.

One of the subjects to be considered will be ratification or rejection of the plan formulated at White Sulphur Springs, W. Va., in December for a national organization of furniture and household goods warehousemen.

The chief business session will be held on the opening day of the convention. On the second day there will be a 'bus trip to St. Augustine, about thirty-five miles distant. On the final day a boat ride will be taken up the St. John's River to Green Cove Springs, where the delegates will go in swimming. The social program has been arranged for the enjoyment of the women who will attend the convention.

Japanese Purchase Warehouse

SEATTLE, Wash., Jan. 3.—The Nippon Yusen Kaisha has purchased a warehouse in Seattle at a cost of \$3,000,000 from the Port Commission Co. Seattle is one of the American terminals for Japan's largest steamship company and this sale was negotiated by Baron Kondo, head of the company.

Report on Stored Foods

LOS ANGELES, Jan. 5.—Los Angeles warehouses are submitting monthly statements to the city authorities of foodstuffs held by them, under the ordinance recently passed. The report is made to the city superintendent of markets and is required to contain full information as to the kind of foodstuffs in storage, the quantity, and the date of receipt. Through these reports the city hopes to prevent undue holding of foods from the market.

Speeding Frisco Freight Handling

SAN FRANCISCO, Jan. 5.—Arrangements have been perfected for the accommodation of shipping companies along the water front so that it will be unnecessary for any to make shifts of terminals to Oakland. President J. H. McCallum, of the Board of State Harbor Commissioners, said the work of speeding up handling of freight shipments will soon be solved. The board will be prepared to supply all docking space necessary, he said.

To Increase Facilities

BIRMINGHAM, Ala., Jan. 5.—The Port of Birmingham Co., of this city, will erect new buildings and install general improvements in connection with the port facilities, at a total cost of \$70,000.

FEDERAL STORAGE OF FARM PRODUCTS

Provided for in Bill Introduced in Congress—Mr. McClintic Tells About His Measure

WASHINGTON, D. C., Jan. 23.—Representative James V. McClintic of Oklahoma, commenting regarding the bill he has introduced which would provide both for storage of agricultural products in Government warehouses where intoxicating liquors have hitherto been stored and for new rates on such products sent to these warehouses, said to-day to *Distribution & Warehousing*:

"No individual or organization has made any suggestion to me relative to providing additional warehouse facilities, but, on the other hand, I have realized for a long time that a large portion of the agricultural products produced are wasted because of inadequate marketing facilities. In Oklahoma nearly every year there is a surplus of alfalfa, broom corn, cotton and other products which are allowed to remain out in the weather until the same are damaged to a certain extent.

"My object in introducing this bill was to utilize the buildings formerly used for the purpose of storing spirituous, intoxicating liquors, if available, for the storing of surplus agricultural products until a satisfactory market could be found. In order to encourage the use of Government warehouses of this kind, I have provided a separate section which will require the Interstate Commerce Commission to put into effect combination destination rates, which is not a new departure, for the reason the millers of the country have enjoyed a rate of this kind and some years ago shippers of cattle were allowed this same consideration.

"I am also of the opinion if grading experts could be employed and a sales department established it would result in providing means whereby agricultural products stored could be disposed of in a way acceptable to those who might well avail themselves of these opportunities.

"You, of course, understand that legislation of this kind would, to a certain extent, be experimental in its infancy, however, if these buildings could be used in accordance with the provisions of my bill it would do much toward cutting out middlemen profits and, at the same time, aid in the conservation and distribution of many of the products that are grown on the farm."

Section 3 of Representative McClintic's bill is the one which related to rates. It reads:

"That for the purpose of conserving the products of the farm and the prevention of waste, upon this bill becoming a law, the Interstate Commerce Commission shall immediately provide and put into effect a new schedule of combination railroad rates applying to shippers who desire to store products of the farm in Government warehouses, which will cause

the rate to the Government warehouse and to final destination to be no higher than a through rate to destination, provided, that the crops stored shall be reshipped within a period of one year from the date same are received at the Government warehouse, and provided further, that the provisions of this section shall not apply to purchasers of farm products who are not actually engaged in the occupation of farming."

New Pittsburgh Warehouse

PITTSBURGH, PA., Jan. 14.—A new warehouse and office building will be erected by the Chatfield & Woods Co., paper merchants, at a cost of approximately \$640,000.

REDS DENOUNCED AT NEW JERSEY MEETING

NEWARK, Jan. 14.—Bolshevism and I. W. W. tendencies were denounced and the honest laborer was commended at the annual banquet of the New Jersey Furniture Warehousemen's Association at the downtown club here to-night. Charles R. Morris, president of the New York Van Owners' Association, declared warehousemen were a big factor in the country, and a part of the world's commerce, just as much as the great steel corporations, and that it was the duty of all "to refuse to become a party to the wild extravagance that prevailed at present." Among the other speakers were William T. Bostwick, president; Charles Barber of Mount Vernon, and Charles Kaufman of Baltimore. Warehousemen from New York, Brooklyn and Chicago were guests.

President Bostwick's annual message contained a note of economy. It commended the offices and committees for excellent work during the year, and warned the members against radicalism.

The first vice-president, John L. Mertin, of the Model Storage Warehouse, Newark, gave a brief history of the association from its inception and of its activities in matters of legislation.

The second vice-president, William Eldridge, made an interesting report concerning uniform methods and the correct manner of conducting the warehouse business from the inside.

The following officers were re-elected: William T. Bostwick, Jersey City, president; John L. Morton, Newark, first vice-president; William Eldridge, Atlantic City, second vice-president; John McGrath, Newark, treasurer; Frank J. Summers, Newark, secretary.

Joseph Lupo, Newark; George Weimer, Elizabeth; Jefferson Everson, Jersey City; Joseph J. Croeger, Newark; R. T. Blaudert, East Orange; John O'Connor, Harrison, and Frederick Petry, Trenton, were elected directors.

To Build N. C. Highway

RALEIGH, N. C., Jan. 12.—The North Carolina Highway Commission has awarded a contract for the construction of the Lenoir county section of the Central highway, at a cost of 705,000.

WOOL WAREHOUSES WILL BE REGULATED

Series of Public Hearings to Be Held—Financing for Growers Made Easier by Government

WASHINGTON, Jan. 13.—Financing for wool growers is made easier, according to an announcement by the United States Department of Agriculture that the growers may use receipts issued by the Government licensed warehouses to secure loans for financing the storage and marketing of their wool.

The licensing of wool warehouses under the United States Warehouse Act gives to wool growers facilities for credit which approach those enjoyed by other business men, says a statement issued by the Bureau of Markets. The purpose of the act, the bureau explains, is to make it possible to issue a receipt of such integrity for wool stored in a licensed warehouse that it can be easily negotiated and widely used by the grower, warehouseman, manufacturer, or other depositor owning it in financing the storage and marketing of the wool.

The value of the licensed warehouse receipt is based on the following points: (1) It is issued by a warehouseman licensed by and bonded to the United States, who operates, under government supervision, a warehouse which has been examined and found to be a suitable place for the storage of wool by a federal inspector; (2) conditions under which the receipt is issued make it reliable evidence for the ownership, quality, quantity, and other conditions of the wool for which it is issued.

Tentative rules and regulations for governing wool warehouse's license under the act have been drafted and hearings on these will be held in different sections of the country to afford all interested persons an opportunity to attend and discuss the proposed rules and regulations. The final hearing will be held in Washington, beginning at 10 o'clock, March 1, 1920. A representative of the Bureau of Markets will preside at each of the hearings. The hearings scheduled follow:

Feb. 2, Deshler Hotel, Columbus, Ohio; Feb. 3, Flanders Hotel, St. Louis; Feb. 7, Elks Home, Rawlins, Wyo.; Feb. 9, House of Representatives, State Capitol, Salt Lake City; Feb. 12, Room 1131 Merchants Exchange, San Francisco; Feb. 16, Multhomah Hotel, Portland, Ore.; Feb. 19, Olive Hotel, Miles City, Mont.; Feb. 23, Scott Yards Inn, Chicago; Feb. 25, Boston Wool Trade Association, Boston; Feb. 27, Chamber of Commerce, Philadelphia; March 1, Bureau of Markets, Washington, D. C.

Suggestions made at these hearings will be taken into consideration in adopting the final rules and regulations to which warehouses must conform in order to be licensed by the Government. Uniformity of conditions, it is said, will make the warehouse receipts more widely valuable as collateral for loans.

REVISED LIST OF A. W. A. COMMITTEES

Secretary Criss Announces Final Selection of 1920 Personnel to Direct Association

PITTSBURGH, Jan. 20.—A revised list of the officers, directors and committees chosen at the annual convention of the American Warehousemen's Association at Cincinnati in December is announced by Charles L. Criss, general secretary, as follows:

OFFICERS: James F. Keenan, Pittsburgh, president; George S. Lovejoy, Boston, vice-president; Walter C. Reid, New York, treasurer; Charles L. Criss, Pittsburgh, general secretary.

DIRECTORS: Gardner Poole, Boston; M. C. Cummings, Chicago; Homer McDaniel, Cleveland; W. Lee Cotter, Mansfield, Ohio; F. L. Bateman, Chicago; C. A. Aspinwall, Washington, D. C.; D. H. Van Name, New York; W. L. Spencer, Pittsburgh; W. W. Morse, Minneapolis.

GENERAL EXECUTIVE COMMITTEE: Mr. Keenan, chairman; Mr. Lovejoy, vice-chairman; Mr. Cotter, Mr. Van Name, Mr. Poole; and Mr. Criss, general secretary.

MERCHANDISE SUB-DIVISION EXECUTIVE COMMITTEE: Mr. Van Name, chairman; T. E. Witters, Baltimore, vice-chairman; R. L. Spencer, Pittsburgh; W. W. Morse, Minneapolis; S. M. Haslett, San Francisco; William E. Halm, New York City.

HOUSEHOLD GOODS SUB-DIVISION EXECUTIVE COMMITTEE: Mr. Cotter, chairman for two years; Mr. Reid and Mr. Keenan, each two years; Mr. Aspinwall, F. L. Bateman of Chicago and T. Y. Leonard of Detroit each one year; A. F. Porter, Mansfield, Ohio, secretary.

COLD STORAGE SUB-DIVISION EXECUTIVE COMMITTEE: Eugene W. Lewis, New York City, chairman; Mr. Poole, M. C. Cummings of Chicago, Homer McDaniel of Cleveland, A. V. Mason of Pittsburgh, S. J. Drahekin of New Orleans, and Mr. Criss as secretary.

CENTRAL BUREAU COMMITTEE (GENERAL): John L. Nichols, Boston, chairman; Mr. Cotter, vice-chairman; W. B. Mason, Providence, R. I., representing the cold storage sub-division; S. M. Woodson, Kansas City, Mo., representing the merchandise sub-division; Mr. Aspinwall, representing the household goods sub-division.

MERCHANDISE SUB-DIVISION'S CENTRAL BUREAU SUB-COMMITTEE: Mr. Witters, chairman; John Bekins, Omaha, vice-chairman; C. W. MacDonald, Chicago; Edwin Morton, New York City; S. G. Spear, Boston; George Hamley, Minneapolis; S. H. Verrall, Chicago; D. L. Tilley, New York City; E. H. Bacon, Louisville; R. W. Dietrich, New Orleans.

HOUSEHOLD GOODS SUB-DIVISION'S CENTRAL BUREAU SUB-COMMITTEE: S. C. Blackburn, Kansas City, Mo.; Mr. Reid; M. H. Kennelly, Chicago; C. J. Neal, Cleveland; William T. Bostwick, Jersey City; H. L. Halverson, Minneapolis; E. M. Bond, Nashville; W. R. Wood, New York City; D. V. Murdock, Pittsburgh; T. A. Jackson, Chicago.

COLD STORAGE SUB-DIVISION'S CENTRAL BUREAU COMMITTEE:

W. B. Mason, chairman; O. C. Mackey, Boston; George H. Stoddard, Boston; F. M. Shoemaker, Elmira, N. Y.; H. C. Lewis, New York City; Nimmo Old, Norfolk, Va.; George Kettridge, Columbus; M. C. Cummings, Chicago; R. H. Switzler, St. Louis; A. V. Mason.

COMMITTEE ON BANKS AND WAREHOUSES: Mr. Halm, chairman; A. H. Greeley, Cleveland; W. Fred Richardson, Richmond, Va.; Tarrant P. King, Boston; Mr. Cummings.

COMMITTEE ON WAREHOUSE CONSTRUCTION AND LABOR SAVING DEVICES: Mr. Neal chairman; F. W. Berry, Cincinnati; Louis B. Magid, New Orleans; J. P. Feuling, St. Paul; Frank E. Powell, Indianapolis; Mr. Haslett.

COMMITTEE ON INSURANCE: Mr. Bostwick, chairman; L. M. Chamberlain, Minneapolis; B. C. Gilbert, New York City; A. W. Reebie, Chicago; Mr. Greely.

COMMITTEE ON LAWS AND LEGISLATION: Albert M. Read, Washington, D. C., chairman; William M. LeMoine, Chicago; John Bekins, Mr. Spencer, Mr. McDaniel, Mr. Hamley.

COMMITTEE ON RAILROADS AND STEAMSHIPS: F. L. Bateman, Chicago, chairman; Mr. Blackburn, Mr. Woodson, Mr. Dietrich, Mr. Spear.

VIRGINIA ENFORCES COLD STORAGE LAWS

RICHMOND, Va., Dec. 22.—The State Board of Agriculture of Virginia has adopted the following rules and regulations for the enforcement of the Virginia cold storage laws:

Every person, firm or corporation offering for sale any fresh meats, fresh meat products, fresh fish, poultry, eggs, milk, butter, cheese, edible fats and oils, lard, which may have been held in cold storage 30 days or over, must retain on such articles of food all markings they showed when withdrawn from storage; and

Shall affix to such article, or its container, a placard with the words, "Cold Storage Goods," printed thereon in letters at least one inch high; and

Shall stamp or mark on the outside of every package of such article delivered to the customer, the words, "Cold Storage Goods."

Hotels and restaurants serving any of the above named articles which have been held in cold storage for 30 days or over shall place on their bills of fare or menu cards a statement that "All cold storage foods sold here are marked thus (*)," and in such case every cold storage product appearing on the menu must be preceded by the sign of a star (*).

Warehouse in South Seas

TOKIO, Nov. 26.—The development of Japan's South Sea trade will be helped through the proposed establishment of the Nanyo Soko Kadushiki Kaisha (South Sea Warehouse Co.) with a capital of 5,000,000 yen (\$2,500,000). The company will undertake warehousing in Formosa, South China, and several South Sea islands. At the same time it will advance loans to farmers and dealers in rice and other cereals in and around Rangoon.

RURAL MOTOR LINE FORMED IN MINNESOTA

To Serve Territory Along Highways Within Seventy-five Mile Radius of Minneapolis

MINNEAPOLIS, Jan. 10.—Announcing the formation of the Rural Motor Truck Terminals, Inc., the company says it has entered the motor truck transportation industry, believing the service will fill a long-felt want. It plans to remove many of the disadvantages of railway transportation, supplement railway transportation for distances within a reasonable radius, and give patrons best possible service at a minimum cost.

The Truck Terminals company plans a daily motor truck service on all principal highways radiating out of Minneapolis and St. Paul for a distance of 75 miles. The service, it is asserted, is favored by the railway companies as relieving them of a large percentage of short-haul business which is now found unprofitable. Merchants in small towns will be able to get quick shipments, and by smaller quantity shipments will improve their credit ratings.

Advantages to the farmer of the service are being advertised by agricultural agents and commissions, because of the aid that has been rendered by truck lines in Indianapolis, Omaha, St. Joseph and other centers. Special attention is planned for live stock and produce shipments from farm to market, and rates will be fixed to correspond with other transportation line charges.

Freight is divided into three classes. A minimum charge of fifty cents is fixed on all shipments, and the company reserves the right to reject any shipments which do not conform to the carrying capacity and dimensions of the trucks. The regular rate schedule provides a graduated system of charges for goods in first, second and third class, in distances from one to 171 miles.

To Eliminate Gratuities

PHILADELPHIA, Jan. 20.—The tipping evil among employees of van fleet operators in the warehousing and distribution lines in this city hitherto has not been the cause of much complaint, but recently the Chamber of Commerce has received such pointed protests that the drivers of certain express wagons have been demanding tips from persons and refusing to give full service unless these emoluments were forthcoming, that the Chamber's Bureau of Transportation has taken the matter up. The Bureau has addressed a letter to the superintendent of one express concern, calling the case to his attention and asking for an investigation. The letter says in conclusion:

"We know you will be glad to make an investigation of this subject and we trust it will be so thorough that your employees will be made to feel not only that they should not solicit, but that acceptance will be cause for dismissal."

INTERPRETATION OF MOTOR TRUCK TAXES

Internal Revenue Bureau Issues
Official Explanation of Gov-
ernment's Levies

WASHINGTON, Jan. 26.—Interpretations of the taxes on transportation by automobiles and motor trucks have been made by the Internal Revenue Bureau of the Treasury Department. Transportation of merchandise by motor trucks is taxable only when it is in competition with carriers of property by rail or water or mechanical motor transportation by rail or water regardless of other competition. For example, the transportation of freight by automobile trucks is taxable only when it is in competition with carriers by rail or water, but transportation by a motor driven boat or motor propelled rail facilities are taxable whether competition exists or not. When property is transported between two points by automobile and rail or water transportation is furnished between these same points, competition is deemed to exist.

Transportation of household goods by motor trucks is regarded as transportation of property by freight and if it is conducted in competition with transportation by rail or water, it is subject to transportation tax. When the amounts charged for transportation by automobile vans include the service of packing and unpacking furniture, carrying goods up and down stairs, moving pianos, safes, etc., out of windows, the tax will be applied to the entire charge made for the service, unless the amounts can be itemized and apportioned, then the tax applies only to actual transportation charge.

When a motor truck is chartered and the person chartering the truck transports his own property on it, the amount paid for chartering the truck is not regarded as a transportation charge subject to tax, but payments for the rental or chartering of a truck that is operated by the owner of the truck or his employees are subject to the transportation tax.

Transportation by express by motor truck is not taxable unless it is in competition with express transportation by rail or water. The express tax would be applied dependent upon the character of and the conditions under which services are rendered is distinguished from transportation of property by freight. Express business is defined as made up with regularity and fixity of route, greater care and speedier delivery than with freight. The charge of a greater price on account of special service would be evidence that the property hauled is being hauled by express service. The Government recognizes that special provisions may exist in the distinction between express and freight and suggests that special cases should be submitted to the Commissioner of Internal Revenue for determination.

The hauling of baggage by motor

trucks which do not transport other parcels or packages is not regarded as a business of transporting by express. Parcel delivery drayage companies engaged in city delivery or ordinary local hauling are not in the express business and are not subject to the express tax. The tax on transportation of property by freight is 3 per cent of the amount paid for the transportation. The tax on transportation of packages, parcels or shipment by express is 1 cent for each 20 cents or fraction thereof of the amount paid for the transportation of the express packages. No tax applies to any payment for freight amounting to 16 cents or less.

A tax of 8 per cent of the amount paid for transportation of persons by automobiles or airplanes applies from one point in the United States to another point within this country. It is not necessary that the automobile or motor transportation should pursue any specific route of travel. It is not necessary that the machine itself should be hired for a journey, but merely that a contract between the operator and the persons served should exist. Payment for the transportation of persons by airplane or airship are subject to tax if the service is rendered over a regular established line competing with carriers by rail or water. When persons are transported between two points by an automobile and rail or water is furnished between the same points, competition is deemed to exist if the persons carried by the automobile could make the trip by rail or water in the absence of motor transportation.

When motor transportation is in competition with rail or water transportation for a part of the automobile route, and not in competition for the remaining part, the total amount paid for the motor transportation is taxable unless the total amount paid is divisible on the distance basis, in which event the tax will apply only to the charge for that part of the motor transportation which is in competition with rail or water transportation.

All taxes applying to cars and trucks for transportation are to be collected by the car or truck owner, who must make remittances on or before the last day of each month to the local collector of internal revenue.

Machinery Mfrs.' Meeting Postponed

NEW YORK, Jan. 24.—The convention of the Material Handling Machinery Manufacturers' Association, which was to be held here Jan. 29-30, has been postponed to Feb. 26-27.

Details of the program are being completed, and arrangements have been made to hold a morning business session on Feb. 26, which will be followed by a formal luncheon at the Waldorf with prominent speakers. The afternoon session of the 26th will be devoted to papers and discussions on mechanical handling problems, a number of papers to be illustrated by moving pictures. On Feb. 27 there will be a continuation of the program.

BALTIMORE SEEKS WAREHOUSE GROWTH

Export and Import Board Recommends Expenditure of \$50,000,000 for Development

BALTIMORE, Jan. 10.—Need for more warehouses in and about the waterfront section of Baltimore is outlined in the report to Austin McLanahan, president of the Export and Import Board of Trade of Baltimore, by a special committee headed by W. M. Brittain, general manager of the organization. The report carried a recommendation for a \$50,000,000 expenditure in improving port facilities. Regarding warehouses the report said:

"A survey of the waterfront warehouses of the port demonstrates that they are at present filled to 95 per cent of their capacity, despite the fact that the economic productivity of a warehouse diminishes when filled beyond 75 per cent of its capacity.

"The port of Baltimore has undoubtedly, in the aggregate, natural and other advantages in many respects surpassing all other Atlantic Coast ports, but whatever the natural and acquired advantages with which a port is equipped, if its wharfage and warehouse facilities are not adequate it will be seriously handicapped in competition with other ports less favorably endowed by nature, but better developed artificially.

"The railroads in this port, over whose wharves most of our export and import general merchandise cargoes are handled, make no charge to vessels to which berth space has been assigned, but unless these railroads will be in condition to increase the number of their piers, the prospect is that many of the ships trading here will be obliged to undergo delays in the harbor before being able to dock, with all that this implies. The impoverished condition of all railroads precludes the hope that after they have been released by the Government, they can cope with this exigency.

"Representatives of some of the steamship lines operating here have been interviewed by the Export and Import Board of Trade as to this prospect, and some of them have indicated that they could better afford to pay a reasonable annual rental for wharf accommodation than to be subjected to expensive and vexatious delays out-stream. A simple multiplication of \$3,000 (the estimated expense incurred each day that a ship remains idle) by the number of days in a year when a ship might have to await a berth will suffice to verify this.

"The railroads themselves, though not in funds to undertake any extensive program of new wharf construction on their own account in the near future, would, doubtless, in consideration of the advantages accruing from wharf ownership or control, deem it prudent to lease piers constructed either at public expense or by private contractors."

Loose-Leaf Folder System of

KEEPING TAB ON RATES

A SIMPLE but efficient form for handling freight by a shipper through the various warehouses which sell him distribution service is used by the Sterling Products, Inc., of Wheeling, W. Va.

In the accompanying reproduction of part of one of the Sterling forms few rates have been inserted for purpose of comparison. In explanation of the system, H. H. Williams, traffic manager, writes:

"This sheet is filed in a loose-leaf folder and as many pages as needed for stations may be arranged alphabetically. At the top of this sheet is a list of eight cities, at places where warehouses are located, and they carry with them the carload rate from point of manufacture. And beneath this line are columns which carry the less carload rates from various warehouses to points indexed. As soon as rates are received they

can be inserted; and the more rates, the better the record.

"This sheet after it is completed will show what each shipment will cost by way of any of the warehouses. It may be compared by the rate in the first column, which is the less carload rate from point of manufacture. For instance, by using the appended sheet we find that the carload rate from Wheeling to Dallas, Tex., is \$2.06, and the less carload rate from Dallas to Beaumont, Tex., is \$1.15, which makes a total cost per hundred of \$3.21 when freight is forwarded to Beaumont from the warehouse in Dallas. Now, compare this with the \$2.495 rate, which will show that .615 cents per hundred is lost by forwarding freight in less carload lots from Wheeling to Dallas and in less carload lots from Dallas to Beaumont. This sheet also enables us to check freight charges on all our shipments by way of our warehouses or from Wheeling direct."

TO		CAR LOAD RATE FROM WHEELING TO								LESS CAR LOAD RATE FROM							
		Chicago	Kan. City	New Orleans	Dallas	San Francisco	Richmond	New York	Detroit								
		5 ⁰⁰	116 ¹ / ₂	119	206	287 ¹ / ₂	1 ⁰⁰	45	44 ¹ / ₂								
		Wheeling	Chicago	Kan. City	New Orleans	Dallas	San Francisco	Richmond	New York	Detroit							
Alexandria	La	222		195 ¹ / ₂	99												
Beaumont	Tex	249 ¹ / ₂	209		111 ¹ / ₂	115		241 ¹ / ₂		237							
Colos	Ny	67 ¹ / ₂							39 ¹ / ₂								
St. Augustine	Fla	170						140									
Juba	Okla	241	169	106 ¹ / ₂		115											
Merced	Mon	287 ¹ / ₂	267 ¹ / ₂	262 ¹ / ₂	262 ¹ / ₂	262 ¹ / ₂	125	312 ¹ / ₂	312 ¹ / ₂	287 ¹ / ₂							

Consolidated Car Service

The Fast Freight Forwarding Co. announces an arrangement with all car lines entering Buffalo, as well as their connections, to carry traffic to the company for its consolidated cars out of Buffalo. The company points out that by this means shipments from Detroit will not be delayed moving via express to Buffalo terminals. The company is giving 48-hour service as far east as Syracuse and as far west as Erie on shipments moving into Detroit. This includes also Jamestown.

Cold Storage Warehouse for Antwerp.

A large cold storage warehouse is to be built in Antwerp by several provinces and municipalities in Belgium, with space allotted according to amount of investment. At present there is said to be only 5,000 tons of refrigerating space in Belgium.

Southern Warehouse Construction.

A manufacturing authority estimates that during 1919 about 900 warehouses were constructed, or the work of building begun, in the Southern States alone.

Motor Trucks Relieve Congestion.

The British Government brought the motor truck into use in its recent campaign to eliminate congestion at the Manchester freight docks. Sixty vehicles of the larger tonnage types were put in daily use and operated on a carefully thought-out basis of organization, which included a return loads system covering territory within a twenty-five mile load radius from the docks. What was accomplished did a great deal to sell Manchester warehousemen on the value of the motor truck.

WAREHOUSING NEWS

Contributions Solicited

MERCHANDISE

Lee Brothers Storage & Van Co., Jersey City, has changed its name to Lee Brothers, Inc.

Pawtucket Warehouse Co., Providence, R. I., has increased its capital from \$5,000 to \$100,000.

The Brokers Warehouse Co., Denver, Col., has been incorporated with a capital stock of \$250,000 to conduct a warehouse for the storage of merchandise and personal property. The incorporators are E. F. Harmon, W. S. Hurd and Nelson G. Hurd.

The American Radiator Co. will erect a \$150,000 warehouse in Milwaukee.

Thomas E. O'Connor, Baltimore, will erect a four-story warehouse at 447 Guilford Avenue.

The Coconino Farm Bureau, Flagstaff, Ariz., have rented the concrete warehouse of Babbitt Brothers, and will use it for storage of grain and potatoes. Storage rates will be 10 cents a sack irrespective of the time stored. This is considered by the farmers as far better than storing on the ranches as it insures against having the produce snowed in.

Security Storage & Warehouse Co., Winnipeg, Canada, has completed the installation of a modern carpet-cleaning plant.

Burley Tobacco Co., Lexington, Ky., one of the largest loose leaf tobacco warehouses in the world, has been sold at auction to an independent company composed of old stockholders of the Burley company for \$177,800. The new corporation will continue its operation.

Cudahy Packing Co., Los Angeles, Cal., has been granted a permit to build a reinforced concrete warehouse to cost \$20,000.

Frank L. Pollard Co., Oakland, Cal., has leased the freight warehouse of the Western Pacific Railroad Co. and will arrange to store its store stock and re-ship to its agencies throughout California.

Wineville Warehouse Co., Wineville, Cal., has been authorized to issue \$4,000 worth of stock.

Nold Transfer & Storage Co., Pasadena, Cal., has applied for authority to issue \$18,000 worth of stock to purchase warehouse site, erect warehouses and purchase auto trucks.

Saticoy Warehouse Co., Fillmore, Cal., has been authorized to issue \$7,500 worth of stock to pay for improvements and extensions to its warehouse.

The E. P. Timberlake transfer barn and storage warehouse at Newberg, Ore., was destroyed by fire recently, with a loss of \$20,000. Nine horses were burned to death.

The City Transfer Van & Storage Co., Long Beach, Cal., has taken into the business as partners several employees who have been with the company for some time past. The new men are Edward Kehl, George A. Miller and three brothers, L. H., J. R., and A. F. Zimmerman.

The North Side Storage & Warehouse Co., at 148th Street and Bergin Avenue, New York, has been sold by John Nimphius to Lee Brothers, Inc., storage and furniture men. Nimphius was one of the pioneers in the business in the Bronx. He established the business in 1859. With the latest addition the Lee company will operate six warehouses. Their lease on the North Side building will run for 21 years, the aggregate rental being \$200,000.

The Blanchard Storage Co., Rochester, N. Y., has increased its capital stock from \$20,000 to \$100,000.

The Fireproof Warehouse & Storage Co., Columbus, Ohio, has awarded a contract to a local contractor for the construction of a large addition to its plant at 1024 North High Street. The addition will be 73 x 87 ft., five stories and basement, with improved machinery for the handling of merchandise. P. A. Dolle is manager of the company.

The Crystal Ice & Storage Co., Portland, Ore., is building a \$60,000 plant, the basement and third floors of which will be used for storage and the first and second floors for factory purposes. The plant is 100 x 115 ft. and adjoins the present location at East Main and East Seventh Streets.

The Ontario Storage Corp., Ontario, N. Y., has been incorporated with a capital stock of \$125,000. The incorporators are J. S. Albright, E. J. Tobin and J. Colwell.

Merchants Truck Co., Los Angeles, Cal., suffered a \$65,000 loss on Dec. 15, when its warehouse and garage was destroyed by fire. Twenty-nine horses were burned to death and twelve motor trucks destroyed.

Milwaukee-Waukesha Delivery Co., Milwaukee, has begun construction of a modern fireproof storage warehouse, with special dust and moth-proof rooms.

Inter-Mountain Warehouse Co., Reno, Nev., has been established to carry on a general warehousing business.

Sheriff Street Market & Warehousing Co., Cleveland, will erect a 12-story cold storage building adjoining its present plant. The building will contain approximately 2,000,000 cu. ft. of space. Estimated cost, \$1,000,000.

Manhattan Storage & Warehouse Co., New York City, has sold its four-story

warehouse structure at 106 East Fourteenth Street to Charles & Co.

A-B-C Fireproof Warehouse Co., Kansas City, Mo., is erecting a six-story warehouse, 60 x 134 ft., at a cost of \$135,000.

Jackson's Express & Van Co., Chicago, will erect a five-story warehouse, 75 x 100 ft.

Elston Packing & Storage Co., Grand Rapids, Mich., will build a 60 x 76-ft. steel and concrete addition to its warehouse at Walthy Street and Charles Avenue.

J. B. Buchanan, Little Rock, Ark., will erect a 70 x 140 ft. warehouse.

Lon Dickey Tobacco Co., Abbeville, Ga., will erect a \$20,000 potato-curing warehouse.

S. L. Spach, Winston-Salem, N. C., will erect a \$10,000 storage building.

Spartanburg Warehouse Co., Spartanburg, S. C., will erect four additional warehouses at Camp Wadsworth.

F. A. Piper Co., Uvalde, Texas, will erect a \$21,000 warehouse.

Reynolds Corp., Louisville, Ky., is planning the erection of several large warehouses.

R. M. Winn, Marion, S. C., will erect a \$25,000 addition to the tobacco sales warehouse.

Cooner Brothers & Yates, Jasper Ala., will erect a warehouse and feed store.

Manufacturers Warehouse Co., Charleston, S. C., will erect a \$185,000 warehouse.

HOUSEHOLD GOODS

Westheimer Transfer Co., Houston, Tex., will soon erect a four-story, 53 x 100 ft., reinforced concrete and fireproof addition to its present warehouse. The new building will be used exclusively for storage of household goods.

Bekins Van & Storage Co., Los Angeles, Cal., is adding 40,000 sq. ft. to its warehouse, making 140,000 sq. ft. in all. When complete this structure will be the largest on the Pacific Coast devoted exclusively to household goods storage. The improvement is to cost \$15,000.

COLD STORAGE

The Brooklyn Bridge Freezing & Cold Storage Co., New York, N. Y., is remodeling and insulating their six-story building, which when remodeled will be used as a fish freezing and storage plant. The present plant will also be remodeled and electrically driven equipment installed employing about 450 tons of refrigeration. The expenditure required is estimated at about \$350,000.

The Maine Fisheries Corp., Boothby, Me., will erect a cold storage warehouse, 100 x 65 ft. and five stories in height, the capacity of which will be 400 bbls. every 36 hours. The storage capacity of the plant will be 12,000 bbls.

ASSOCIATIONS

The Port of New York Warehousemen's Bureau of Information, Inc., has elected to membership the Service Stores, 130 Charlton Street, New York, L. D. Kaufman, proprietor. The bureau has elected R. A. Adams chairman of the Cold Storage Section. The section is taking up a constructive work in classification and cost accounting, with special reference to refrigerated warehouses.

Pittsburgh Transportation Association, Pittsburgh, is the name of an association recently organized by the teaming and truckmen of that city. The new organization announces that it will shortly open a permanent office and establish a secretary to look after correspondence, legislation, employment and other matters for the members. The officers are: W. D. Poland, president; W. M. Kirkland, treasurer, and Frank Bridges, secretary.

INCORPORATIONS

The European Forwarding Co., Cleveland, has been incorporated by John E. Palmer and A. C. Haase.

The Packer Storage & Transfer Co., Idaho Falls, has been incorporated with a capital stock of \$100,000 to carry on a general transfer and storage business. N. A. Packer, Stanley Crowley and E. M. Blaylock are incorporators.

The Godley Warehousing Co., Philadelphia, has been incorporated by F. D. Godley, Haverford.

The Union Fireproof Warehouse Co., Akron, Ohio, has been incorporated with a capital stock of \$100,000.

Blythe Producers Warehouse, Blythe, Cal., has been incorporated by the Farmers' Alliance to handle a profit sharing cotton yard for the farmers.

The Market Warehouse Co., Boston, has been incorporated with a capital stock of \$250,000.

The Thomas Walsh Co., of Fall River, has been incorporated with a capital stock of \$5,000 to conduct a general express and warehouse business.

The Atlas Haulage Corp., Norfolk, Va., has been incorporated with a capital stock of \$50,000 to conduct a general transfer, haulage and storage business.

The Alfred P. Martin Co., New York, has been incorporated with a capital stock of \$5,000 to conduct a business as mill agents and warehousemen. Incorporators are P. P. and I. Gettinger and A. P. Martin.

The 122nd Street Stores and Warehouse, Inc., New York, has been incorporated with a capital stock of \$5,000. The incorporators are W. A. Maroney, W. Windels, E. Pokorney.

The Intermountain Warehouse Co., Reno, has filed articles of incorporation as a general warehouse business. The incorporators are W. H. Duncan, Edith Duncan and T. R. Gibson.

The Pensacola Compress & Warehouse Co., Pensacola, Fla., has been organized with a capital stock of \$100,000 to build and install compresses and cotton storage facilities.

Voska & Byoir, New York, has been incorporated with a capital stock of \$50,000 to conduct a forwarding business.

The G. D. Forwarding Co., Buffalo, has been incorporated with a capital stock of \$12,000. The incorporators are M. S. Short, L. B. Beyer, M. C. Jones.

The Capitol Transfer Co., Inc., Richmond, Va., has been incorporated with a capital stock of \$25,000 to conduct a general haulage, delivery and transfer business. The officers are Walter C. Adams, president; Walter A. Williams, Jr., secretary, and W. F. Ware, treasurer.

The Union Transfer & Storage Co., Cincinnati, Ohio, has been incorporated with a capital of \$10,000 to do a general transfer and storage business. The incorporators are Nathan Shapiro, Saul Apter, Arthur Ernst, Fred A. Powers, and Morris Koodish.

Maritime Forwarding Corp., New York City, has filed articles of incorporation with a capital stock of \$50,000. The directors are H. A. Rosenberg, M. Levin and M. Hirschfield.

The Federal Warehouse Storage Co., Akron, Ohio, has been incorporated with a capital of \$100,000.

Singac Warehouse, Inc., Singac, N. J., has been incorporated with a capital of \$25,000, to operate a storage business. The incorporators are J. R. C. Boyer, Cranford, N. J., and E. R. H. Hubbard, New York.

The New Haven Warehousing Corp., New Haven, Conn., has been formed with a capital of \$100,000.

The National Storage Warehouse Co., Louisville, has been incorporated with a capital of \$25,000. The incorporators are H. N. Logsdon, Yeder P. Howard and H. J. Flynn.

Campbellsburg Tobacco Warehouse Co., Campbellsburg, Ohio, has been incorporated with a capital of \$35,000. The incorporators are J. A. Lee, J. T. Jeffries and B. C. Lee.

Ocean Terminals, Inc., New York, has been incorporated with a capital of \$100,000 to conduct a realty, warehousing, commission agent, merchant and stevedore business. The incorporators are D. Chidester, H. S. Scott, and J. B. Defriest.

Goodyear Tire & Rubber Co. will erect a \$351,000 warehouse in Los Angeles, between its rubber factory and cotton mill on Central Avenue. The building will be 340 x 200 ft., and will be served by spur tracks from the Santa Fe and Pacific Electric.

Sandercock Transfer Co., San Luis Obispo, Cal., has been incorporated with William Sandercock as president and F. L. Sandercock as secretary. The company operates a warehouse and a fleet of motor trucks especially adapted for pool car shipments.

Woolsey Bill, Inc., New York, has been formed with a capital of \$10,000 to operate a freight brokerage and forwarding business. Incorporators are W. Bill, F. B. Williams and S. Weinbarger.

Kayden-Popper-Klein, Inc., New York, has been formed with a capital of \$50,000 to conduct a commission and warehousing business. Incorporators are P. M. Kayden, F. A. Popper and M. Klein.

Smith Eleventh Street Warehouse Co., New York, has been incorporated with a capital of \$10,000. The incorporators are J. and I. M. C. Smith, and A. G. Post.

The Farm Bureau Warehouse Association of Mineral County, Keyser, W. Va., has been incorporated with a capital of \$10,000 to operate warehouses. The incorporators are Silas Arnold, J. G. Wright, R. Stimmel, L. T. Carskadon and E. B. Reynolds.

Eastern Terminal Co., Newark, N. J., has filed articles of incorporation with a capital stock of \$125,000.

Penn. Heavy Hauling Corp., New York City, is a new company recently incorporated with a capital of \$250,000 to carry on a general hauling and truck business. The directors are W. I. N. Lofland, Frank Jackson, Mark W. Cole.

Hoboken Warehouse Co., Inc., Hoboken, N. J., has been incorporated with a capital stock of \$100,000 to carry on a general warehousing and storage business.

Nold Transfer & Storage Co., Los Angeles, Cal., has been incorporated with a capital stock of \$50,000. The directors are E. M. Nold, W. H. Nichols and H. S. Nichols.

The South Side Transfer & Cold Storage Co., Youngstown, Ohio, has been chartered with a capital of \$40,000 to do a general transfer and storage business. The incorporators are A. N. Butler, W. T. Beardsmore, Carlos H. Loudahl, Cecil Owens and M. R. Butler.

The Fletcher Cartage & Storage Co., Sandusky, Ohio, has been chartered with a capital of \$15,000 to operate a transfer business and do general storage. The incorporators are Frank B. Fletcher, Charles H. Smith, Harry A. Fletcher, Joseph G. Pyle and A. K. Nier.

Market Warehouse Co., Boston, has incorporated, with a capital of \$200,000.

Nauset Warehouse Co., New Bedford, Mass., has incorporated, with a capital of \$50,000.

Security Warehouse & Cold Storage Co., San Jose, Cal., has incorporated, with a capital of \$300,000, to engage in general and cold storage warehousing.

Egan Warehouse & Feed Corp., Egan, La., has been formed with a capital of \$30,000.

Plymouth Warehouse Corp., Plymouth, N. C., has been chartered with a capital stock of \$50,000. The incorporators are Clyde Calhoun, A. L. Owens and W. W. Hampton.

TRANSPORTATION

The Sacramento Transportation Co., Sacramento, Cal., has put another boat in operation and now has five boats transporting produce along the river. H. H.

The Globe Furnishing Co., Canton, Ohio, is erecting a three-story warehouse. When completed the company will have facilities for the storage of \$150,000 worth of furniture.

FLAT RATE FOR SERVICES

One Traffic Manager Is Eliminating a Warehouse From His Business Because of Separate Charges

THE warehouseman's methods of charging rates for services performed for the shipper will be subject to controversy until the traffic managers and the owners of storage plants can arrive at an amicable understanding. The problem was discussed at the Cincinnati convention of the American Warehousemen's Association in December, but no definite agreement was reached. This is one of the petty quarrels which have been disturbing to shippers and warehousemen for years, and it seems certain that when the industrial traffic managers, having organized nationally, attend in a body the next A. W. A. convention, an endeavor will be made to attain some uniformity of practice.

The situation is that the traffic managers prefer a single item of charge to cover all services performed. The majority of warehousemen have been accustomed to write down individual expenditures in presenting bills to the shippers.

In the letter printed herewith, the views of a Central West traffic manager are presented. DISTRIBUTION & WAREHOUSING would welcome receiving a letter from a warehouseman telling how the storageman looks at this moot question. The traffic manager's letter reads:

"A problem which I have in mind is one which I very much fear will not meet with the approval of the warehousemen. It is in regard to *flat rates*—that is, a rate to cover *all* services from the time cars are received at the warehouse until contents of cars are disposed of.

"To be more specific, this rate should cover labor of unloading

from cars, storage in warehouse, labor from storage to delivery platform, and drayage to railroad station for outbound shipments. This rate should cover also clerical labor such as making out daily shipping reports, bills of lading, shipping tags and any other minor details necessary in the handling of an account on a transfer and storage basis.

"The writer is opposed to the method of making a separate charge for the various operations of labor, etc. It occurs to me that the warehouseman should be in a position to name a rate to cover *all* services, just as the merchant or manufacturer is able to name a delivered price on whatever commodity he may be manufacturing or selling.

"It certainly would sound queer if you or I were to step into a tailoring establishment desiring to purchase a suit of clothes, and would be told that the cloth would cost so much, the lining so much, the buttons and other trimmings so much, and that it would cost a certain amount to have it fitted and a certain amount to have the suit of clothes delivered to your door when it is finished, and so on down the line.

"It seems to the writer that a warehouseman should know his costs the same as the tailor does who makes a suit of clothes, or the merchant who sells you an article for a certain stipulated price, and his price is the same to one man as it is to another, regardless of race or creed.

"The writer is one who is not opposed to advancing the rates to the warehousemen for the handling of our products, provided that it can be proved that the rates

now paid are insufficient. This we do not think is true, however, with the majority of the warehouses that we do business with, for the reason that the rates which we now pay are 100 per cent higher than the rates paid in 1917 or prior to the time that our country entered the war.

"Statistics show that while everything has advanced, taking it as a whole, an advance of 85 per cent would be a fair estimate of the percentage of increase in the cost of living and the cost of operating since 1914. So by taking these figures we are paying the warehouse 15 per cent more than we were in 1917, and are not asking for any more service than we were at that time. In fact, in a number of ways we have devised systems and schemes which will facilitate the handling of our account, making it easier for the warehouse now than it was several years ago.

"However, as stated, we are willing to pay an increase to the warehouses provided that it can be proved that an increase is justified, and further that it can be proved that the warehouse will render SERVICE. Service is the thing that we all must have in these trying and critical times.

"If you find it desirable to present the above for discussion, we would very much appreciate hearing this matter discussed pro and con, although, as first stated, we doubt whether it will be a matter that will meet with much approval, although we feel that our argument is well founded; and we would appreciate the views of the warehousemen in this matter.

"We certainly appreciate what
(Concluded on page 52c)



This is a group picture of some of the men who attended the semi-annual convention of the Central Warehousemen's Club—It was mid-January, but summer-time weather prevailed in Kansas City

Convention Notes

In his report as treasurer, Mr. Hamley said \$542 was expended during the year toward the preparation of the rate guide.

Warehousemen from twenty States attended the convention, California, Colorado, Utah, Montana and Oregon all sending one or more delegates.

Visualizing the association's future, in a speech after his re-election, Mr. Hamley said the day would come when the work to be done would assume such importance that it would be necessary to find "a man big in business and cost accounting" to act in an advisory capacity at a salary of from \$5,000 to \$10,000 a year; a man who would visit all warehouse communities and teach the members how to operate their business based on efficiency cost accounting and on the installation of labor-saving devices.

During a discussion of insurance, members expressed a hope that the warehouse business would be rerated; rates to-day were declared to be exorbitant. It was suggested that a questionnaire be circulated to determine the members' views as to how lower rates might be obtained.

Stock reports were discussed and a

majority of the speakers questioned whether standardized forms could be devised which would be satisfactory to industrial traffic managers to enable them to keep complete records of their distributing and pool car activities.

BASE RATE STORAGE TABLE

"H"-7½"		"I"-7½"		"J"-7½"		Monthly Storage Rate	"K"-7½"		"L"-7½"		"M"-7½"	
Cu. In.	Lbs.	Cu. In.	Lbs.	Cu. In.	Lbs.		Cu. In.	Lbs.	Cu. In.	Lbs.	Cu. In.	Lbs.
1111	22	1000	20	909	18	1c	833	16	769	15	714	14
1666	34	1500	30	1363	27	2c	1249	25	1153	23	1071	21
2222	45	2000	40	1818	36	3c	1666	33	1538	31	1428	29
2777	56	2500	50	2272	45	4c	2083	41	1923	39	1785	36
3333	67	3000	60	2727	54	5c	2499	49	2307	46	2142	43
3888	79	3500	70	3181	63	6c	2916	58	2692	54	2499	51
4444	90	4000	80	3636	72	7c	3333	66	3076	62	2857	58
4999	101	4500	90	4090	81	8c	3749	74	3461	70	3214	65
5555	112	5000	100	4545	90	9c	4166	82	3846	77	3571	72
6066	125	6000	120	5454	108	10c	4999	100	4615	93	4285	87
7777	157	7000	140	6363	126	12c	5833	115	5384	108	4999	100
8888	180	8000	160	7272	144	14c	6666	132	6153	124	5714	116
9999	202	9000	180	8181	162	16c	7499	148	6923	139	6428	130
11111	225	10000	200	9090	180	18c	8333	165	7692	155	7142	145
13333	270	12000	240	10909	216	21c	9999	198	9230	186	8571	174
15555	315	14000	280	12727	252	25c	11666	231	10769	217	9999	203
17777	360	16000	320	14545	288	28c	13333	264	12307	248	11428	232
19999	405	18000	360	16363	324	32c	14999	297	13846	279	12857	261
22222	450	20000	400	18181	360	36c	16666	330	15384	310	14285	290
26666	540	24000	480	21818	432	43c	19999	396	18461	372	17142	348
31111	630	28000	560	25454	504	50c	23333	462	21538	434	19999	406
35555	720	32000	640	29090	576	57c	26666	528	24615	496	22857	464
39999	810	36000	720	32727	648	64c	29999	594	27692	558	25714	522
44444	900	40000	800	36363	720	72c	33333	660	30769	620	28571	580
55555	1125	50000	1000	45454	900	90c	41666	825	38461	775	35714	725
66666	1350	60000	1200	54545	1080	108c	49999	990	46153	930	42857	870
77777	1575	70000	1400	63636	1260	126c	58333	1155	53846	1085	49999	1015
88888	1800	80000	1600	72727	1440	144c	66666	1320	61538	1240	57142	1160
99999	2025	90000	1800	81818	1620	162c	74999	1485	69230	1395	64285	1305
111111	2250	100000	2000	90909	1800	180c	83333	1650	76923	1550	71428	1450

NOTE.—If a package weighs 34½ lbs. or less per cubic foot the storage charge should be based on the "Bulk" or cubic inches. If it weighs more than 34½ lbs. per cubic foot the storage charge should be based on the "Weight"

The foregoing table (continued on opposite page), prepared provisionally by the Central Warehousemen's Club as part of its rate guide, is being revised. As completed, the letters "J" to "S," inclusive, will be



(a) (b) (c) (d)—All seated in front row—(a), John Bekins, chairman of committee which prepared rate guide—(b), S. M. Woodson, retiring president—(c), W. L. Hinds, elected president—(d), George Hamley, re-elected secretary

Mr. Hamley's report as secretary showed a total of one hundred and twenty-one members representing fifty-nine cities, an increase of thirty-one members representing eleven cities.

BASE RATE STORAGE TABLE

"N"-7½"		"O"-7½"		"P"-7½"		Monthly Storage Rate	"Q"-7½"		"R"-7½"		"S"-7½"	
Cu. In.	Lbs.	Cu. In.	Lbs.	Cu. In.	Lbs.		Cu. In.	Lbs.	Cu. In.	Lbs.	Cu. In.	Lbs.
666	13	625	12	588	12	1c	555	11	526	10	500	10
999	20	938	18	882	17	2c	833	16	789	16	750	15
1333	27	1250	25	1176	23	3c	1111	22	1052	21	1000	20
1666	34	1563	31	1470	29	4c	1388	27	1315	26	1250	25
1999	40	1875	37	1764	35	5c	1666	33	1578	31	1500	30
2333	47	2188	44	2058	41	6c	1944	38	1842	37	1750	35
2666	54	2500	50	2352	47	7c	2222	44	2105	42	2000	40
2999	61	2812	56	2647	53	8c	2499	50	2368	47	2250	45
3333	67	3125	62	2941	59	9c	2777	55	2631	52	2500	50
3999	81	3750	75	3529	70	10c	3333	66	3157	63	3000	60
4666	94	4375	87	4117	82	11c	3888	77	3684	73	3500	70
5333	108	5000	100	4705	94	12c	4444	88	4210	84	4000	80
5999	121	5625	112	5294	106	13c	4999	100	4736	94	4500	90
6666	135	6250	125	5882	118	14c	5555	110	5263	105	5000	100
7999	162	7500	150	7058	141	15c	6666	132	6315	126	6000	120
9333	189	8750	175	8235	165	16c	7777	154	7368	147	7000	140
10666	216	10000	200	9411	188	17c	8888	176	8421	168	8000	160
11999	243	11250	225	10588	212	18c	9999	198	9473	189	9000	180
13333	270	12500	250	11764	236	19c	11111	220	10526	210	10000	200
15999	324	15000	300	14117	283	20c	13333	264	12631	252	12000	240
18666	378	17500	350	16470	330	21c	15555	308	14736	294	14000	280
21333	432	20000	400	18823	377	22c	17777	352	16842	336	16000	320
23999	486	22500	450	21176	424	23c	19999	396	18947	378	18000	360
26666	540	25000	500	23529	472	24c	22222	440	21052	420	20000	400
33333	675	31250	625	29411	590	25c	27777	550	26315	525	25000	500
39999	810	37500	750	35294	707	26c	33333	660	31578	630	30000	600
46666	945	43750	875	41176	826	27c	38888	770	36842	735	35000	700
53333	1080	50000	1000	47058	944	28c	44444	880	42105	840	40000	800
59999	1215	56250	1125	52941	1062	29c	49999	990	47368	945	45000	900
66666	1350	62500	1250	58823	1180	30c	55555	1100	52631	1050	50000	1000

NOTE.—If a package weighs 34½ lbs or less per cubic foot the storage charge should be based on the "Bulk" or cubic inches. If it weighs more than 34½ lbs. per cubic foot the storage charge should be based on the "Weight."

eliminated and in their respective places will appear the figures 1 to 10. "H" will thereafter be known as "—1," and the word "zero" will be substituted for "1."

FLAT RATE FOR SERVICES

(Continued from page 52a)

the American Warehousemen's Association is doing for the distributor, and the warehouseman is trying to get the two factions together so as to bring about a more agreeable feeling on the part of both parties. Personally we have no grievances with any of the warehouses we do business with, with the possible exception of one warehouse which insists on handling our account on the monthly basis, and, much to our regret, we will have to discontinue doing business with this particular warehouse, for the reason that we cannot do business on the monthly basis.

"Every other warehouse that we do business with (and there are twelve of them) handles our account on a flat basis, and our account handled in this way certainly must be satisfactory or the warehouses would no doubt have kicked long before this time."

CHICAGO'S WAREHOUSEMEN MUST JUSTIFY THEIR RATES

(Continued from page 40)

Commission felt that it had merely acted passively. James H. Wilkerson, chairman of the Commission, is quoted as saying:

"These letters to customers, several of which have been brought to the Commission's attention, imply that the increase was forced on the warehousemen. Nothing of the sort occurred. They asked permission to raise their charges and it was granted—temporarily. Now they may expect to make efficient inquiry in every aspect of their business."

P. J. Lucey, a member of the Commission, is quoted as saying that about 25 letters have reached the Commission complaining of alleged profiteering and other irregularities:

"In several instances customers have asserted that, upon visiting a warehouse to view their belongings, they have been charged for the time of the man who escorted them from the office to the place where their goods were stored. No such charge was ever authorized."

TRAFFIC MANAGERS AND RETURN OF ROADS

(Continued from page 33)

The Esch and Cummins bills, the one favored and the other opposed, are mentioned by a traffic manager of a Chicago distributor of pure food products. He writes:

"The present Esch bill, with a change strengthening the labor clause, would be as desirable as any legislation along these lines which could be passed at this time. I am not at all in favor of the Cummins bill or its provisions, especially as to creation of a transportation board, compulsory Federal incorporation and consolidation, pooling of earnings, guaranteed return, etc.; in fact, I am entirely in accord with the memorial presented to the conference committee by the National Shippers' Conference."

The traffic manager of a central New York seed producer says "less and less efficiency" has been the rule under Federal control, and he continues:

"What reason have we to suppose that the railroads under Federal control would be operated more efficiently in peace time than in war time? In war time, red tape is cut; but in peace time, never! Quite the opposite."

"Under ownership management of the railroads, competition is restored and real railroad men run things. Under the Government, lawyers would run them."

"It remains for Congress to make provision by law for a system of regulation of the railroads which will restore their credit, give them enough income to expand properly and, let us hope, to do away with all this state regulation."

Crop Warehouses Planned

SALEM, Ore., Jan. 10.—Warehouses will be erected one to every ten acres of Marion county territory in the spring to provide storage for onions and other products, according to a statement by J. H. Hays, who owns considerable acreage in the county. Estimates provide

for twenty-five warehouses early in the season with others to be built later.

Death of C. E. Williams

ROCHESTER, N. Y., Jan. 29.—C. E. Williams, general sales manager of the Sanford Motor Truck Co. of Syracuse, died here to-day after a brief attack of pneumonia. He had been with the Sanford company only two months, having gone to that company from the Selden Truck Corp., with which he had for a long time been associated as sales manager. Prior to his connection with the Selden corporation Mr. Williams was affiliated with the sales department of the Federal Motor Truck Co. of Detroit.

City Transfer Co.'s Progress

EL PASO, Jan. 28.—Reorganization of the City Transfer Co., one of the oldest in the city, has progressed with rapid strides under management of H. U. Kies.

Mr. Kies was advanced from assistant to manager of the company a few months ago. He immediately put into effect progressive handling methods, paying particular attention to the distributing and forwarding of pool car shipments.

Since becoming manager Kies has surrounded himself with a force of men who have had railroad and city experience in handling freights and transfer, and attributes the increasing volume of business to their work in part.

COMPANY FORMED BY ST. LOUIS WAREHOUSES

ST. LOUIS, Jan. 24.—The R. U. Leonori Auction & Storage Co., the American Storage & Moving Co. and the Langan & Taylor Storage & Moving Co. have been taken over by the General Warehousing Co., a new corporation, capitalized for \$750,000. The general offices of the holding corporation will be at the Langan & Taylor branch at Delmar and Euclid Avenues, from which the combined business will be operated. R. L. Orcutt will be president of the General Warehousing Co. and will be in active charge of the business. He will retire as manager of the Orcutt Storage & Moving Co., although he will retain his stock inter-

A PRESIDENTIAL MESSAGE

James F. Keenan, new President of the American Warehousemen's Association, has addressed the following message to the members through the organization's monthly bulletin:

"Having been favored with the presidency of this organization at the recent Cincinnati convention, I want to assure you that I fully appreciate the honor conferred upon me and realize the responsibilities which accompany the position."

"Little, however, can be accomplished by the officers or committees without the co-operation of the members. Therefore, I sincerely hope your assistance may be relied upon to promote the welfare of the association, which if procured will develop and obtain the benefits to be derived by the various sub-divisions of our organization."

"May the new year be rich in its blessings of happiness, health and wealth to you."

ests in that concern. L. L. Leonard is the vice-president of the new corporation. The directors are J. D. Perry Francis of Francis Bros. & Co., Fred E. Allen of the Union Service Co. and J. E. Riley of Francis Bros. & Co. These officers and directors will hold the same offices in the three local warehouse companies absorbed.

Mr. Orcutt states that the merger will give St. Louis one of the largest furniture and storage warehousing companies in the country. The three concerns taken over had a combined capital stock of \$120,000, and were the largest and among the oldest institutions of their kind in the city. The company will soon erect additional warehouses of the most approved fireproof construction adapted to both furniture and commercial storage. These new storage vaults will be equipped with facilities for the cold storage of furs and perishable articles and for the safe protection of silverware and valuables.

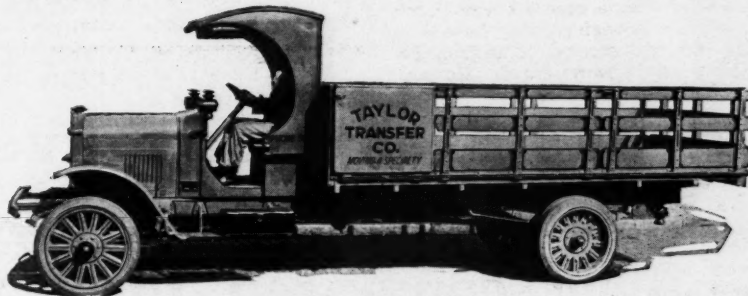
A special feature of the service under the new management will be the cleaning and safe storage of rugs and tapestries. For this purpose rug rooms of the most modern type will be installed, where rugs will be safeguarded against fire, moths and theft.

Furniture Truck

HARRISBURG, Jan. 22.—J. E. Dare of the Atlantic Motor Truck Co., distributors of Kelly-Springfield trucks, has delivered to O. Deckman & Sons Co., Carlisle, Pa., a specially designed and built truck, one of a fleet of five that the Deckman company will use for hauling work. This concern has a contract to transport the household effects of more than 100 families from Philadelphia to Carlisle, where a big construction contract is being filled. Another Kelly truck is being ordered. The new body, made by the Hoover Wagon Works of York, Pa., is made up of three sections. The cab has a seating capacity for five men, a sleeping compartment equipped with three bunks and a storage compartment that will hold a houseful of furniture. The tires are of cushion design. The truck is a 3½-ton Kelly-Springfield standard chassis, equipped with a van 6 ft. 6 in. wide by 17 ft. deep.

Stewart

MOTOR TRUCKS



It's a Cartman

who tells you that Stewart trucks cut
hauling and delivery costs

With so many truck makers claiming big results at low cost, you may wonder who's making good. Don't worry about Stewart Trucks. People in your own line of business who are using Stewarts tell you what Stewarts do.

And Stewarts are making daily low-cost records in more than 200 different industries—in over 600 American cities,

on hundreds of farms, and in 27 foreign countries.

Stewarts cost \$200 to \$300 less to buy, for an exclusive engineering principle enables the Stewart to eliminate several hundred parts that add no strength or durability, producing a stronger truck, simpler to operate, and more economical in gasoline, tire wear and repair costs.

In regard to the two-ton Stewart Truck I wish to state that I have not had any trouble which caused delay of five minutes on any trip or any work.

After checking expenses very closely I find that it costs about the same to run this truck as it does to feed one mule. The truck brings me in about as much as two two-horse drays a month. This saves me the help on a dray and also three mules, as an additional expense.

I will also state that I was expecting to sell some of my mules and drays to purchase this truck but I find that the truck gives me new business sufficient to keep itself busy, also all of my drays.

(Signed) TAYLOR TRANSFER CO.
By E. S. Taylor, Macon, Ga.

A sturdy, quality truck for every use

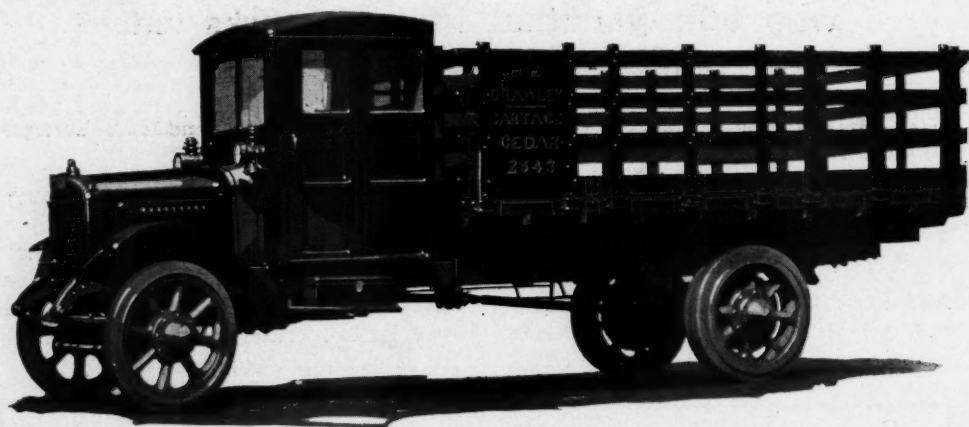
¾-ton Chassis	\$1275
1 -ton Chassis	\$1695
1½-ton Chassis	\$2095
2 -ton Chassis	\$2695
3½-ton Chassis	\$3650

f. o. b. Buffalo

Stewart Motor Corporation, Buffalo

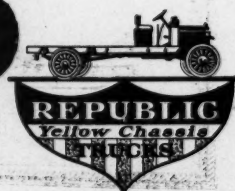
Quality Trucks Since 1912

It does not just happen that the Republic is the largest-selling truck in the world today. It goes back to such basic things as the Republic's performance, its wonderfully rugged strength, and real economy. More than 60,000 shrewd business men have now bought Yellow Chassis Trucks because the Republic convinced them that it actually does better hauling at less cost.



REPUBLIC TRUCKS

Republic Motor Truck Co., Inc., 948 Michigan Avenue, Alma, Michigan





1. Two-ton Garford owned by Cincinnati Moving Company of Cincinnati, Ohio, has run 14,000 miles on 'NOBBIES'.
2. White, 1½-ton truck owned by Summerfield Company has averaged better than 15,000 miles on 'NOBBY CORDS' in and about Boston, Mass.

NOTHING has done more to increase the popularity of 'NOBBY CORDS' than the downright effectiveness of general hauling.

The moving van industry—sold forever on 'NOBBY CORD' cushioning power, plus economy, have forwarded these compliments—"The Cincinnati Moving Company's two-ton Garford is riding on the original air of a year ago. These tires have no less than 14,000 miles to their credit and have reduced our upkeep 30%."

Quoting the Summerfield Company—" 'NOBBIES' on our 1½ ton White have given us better than 15,000 miles and never off the rim; we recommend 'NOBBIES' to our friends." If your trade is looking for real economy in hauling, inform them that—

**'Nobby Cords' Save in Every
Phase of Truck Operation**



The Science of Building Warehouses

THANK YOU

for reminding us that, in past issues of Distribution and Warehousing, your attention has been directed solely to NEW WAREHOUSE BUILDINGS.

Apparently many of you are considering extensions and improvements to your present warehouses. If so, you will be interested in the two illustrations here shown of work of this character now under way.



In one case, the addition was designed to conform in appearance to the original building. In the other instance, however, it was desirable to re-design the front of the existing portion in order to give the completed structure a modern, effective, pleasing exterior.

As a rule, too, it is necessary to make certain changes—always different in character and method of treatment—within the warehouse so that the remodeled portion may agree as closely as possible to the up-to-date and efficient layout of the new part.

Moores & Dunford are giving careful attention to these phases of warehouse development. Their **familiarity** with warehouses in all parts of the country, their **extended knowledge** of warehouse requirements and their **versatility** in the solution of all warehouse problems, enables them to advise and assist you **SATISFACTORILY** in the alterations and additions you plan to make this Spring.

MOORES & DUNFORD

744-6 First National Bank Bldg.

Chicago, Ill., U. S. A.

Shippers Index

A Guide to representative Transfer and Storage
Companies arranged by States and Towns

TWO MESSAGES:

1.—To the Manufacturer:

The shipper who is in the market to buy distribution service will discover what he wants by reading the pages immediately following this one. Therein the merchandise storage men are telling month by month the story of the facilities they have to sell. These pages constitute the biggest publicity medium which the warehousemen have anywhere for letting the manufacturer know what they have to offer in the territory in which each is situated. The shipper who is constantly searching for new distribution channels in the development of his business has come to know through experience that there is no other medium which so nearly approaches the ideal for coming into contact with the warehousemen who, leaders in their industry, build on foundations of economy and good service.

2.—To the Warehouseman:

The storage executive who advertises consistently and informatively his distribution facilities is making the most of the expanding business opportunities which abound in all directions in this era of industrial prosperity. The warehouseman who, by neglecting to advertise, does not tell the shippers what they want to know, retards his own growth and lets his competitor who does advertise get the dollars. And there has never been a time before this when manufacturers had so many of these dollars to spend for distribution.

COMING EVENTS

Meetings Scheduled by Leading Associations in the Industry

Southern Furniture Warehousemen's Ass'n.....	Jacksonville	February 10
Pa. Furniture Warehousemen & Van Owner's Ass'n.....	Philadelphia	February 10
New York State Cold Storage Ass'n.....	Rochester	February 18
Pacific Coast Furniture Warehousemen's Ass'n.....	San Francisco	February 21
Material Handling Machinery Mfrs.' Ass'n.....	New York City	February 26
Transfer & Storagemen's Ass'n of Montana.....	Billings	February
Northwest Transfer & Warehousemen's Ass'n.....	Seattle	May
National Furniture Warehousemen's Ass'n.....	(To be decided)	July
American Warehousemen's Ass'n.....	(To be decided)	December
American Chain of Warehouses	(To be decided)	December

BIRMINGHAM, ALA.**HARRIS TRANSFER
AND WAREHOUSE COMPANY**

(Equipped to Handle Anything)

MODERN FIREPROOF WAREHOUSE

Special Attention Given to Packing and Shipping

When shipping to Birmingham, consign goods to Harris
—he will look after your interests, also those
of your customer

Offices: CHAMBER OF COMMERCE BLDG.

BIRMINGHAM, ALA.**Wittichen Coal & Transfer Co.**

12 South 20th Street

Transfer and storage of household goods. Packing and
shipping. Forwarding and distributing agents. Heavy
Haulage, Motor Service.

BUILDING MATERIAL DEALERS

LITTLE ROCK, ARK.**WAREHOUSING
AND FORWARDING**

Distributors of Pool Cars, Parcel Post Catalogs and
Merchandise

**TERMINAL
WAREHOUSE COMPANY**

109-111 RECTOR AVENUE

All track connection

BERKELEY, CAL.**STUDENTS
EXPRESS & TRANSFER CO.**

MOVING
STORING
FORWARDING

2132 SHATTUCK AVENUE

LOS ANGELES, CAL.**Fidelity Fireproof Storage**

1836 Arapahoe Street, Los Angeles, Cal.

Intelligent and forceful supervision of all
business intrusted to us.

We have a seven-story reinforced concrete
warehouse.

We consolidate and solicit distribution of con-
solidated cars of household goods.

Frank Robert Palmateer, Prop.

LOS ANGELES, CAL.**Shattuck & Nimmo
WAREHOUSE CO.****Storage and Distribution
Of All Non-Perishable Commodities**

All cars handled at our own plant. No switch-
ing charge if cars are consigned in our care.

Manufacturers and forwarders consolidating
car loads for Pacific Coast distribution are
assured of efficient service and prompt returns.

MEMBERS

Pacific Coast Furniture Warehousemen's Association, American
Chain of Warehouses, National Distributing Division,
Local Rotary Club and Chamber of Commerce

SAN FRANCISCO, CAL.**BEST IN THE WEST****OUR SAN FRANCISCO WAREHOUSE**

When you Ship to California
Remember to Ship to

BEKINS FIREPROOF STORAGE

Prompt and Intelligent Returns,
Your Customers Satisfied

Los Angeles
1341 Figueroa St.

Oakland
22d & San Pablo

San Francisco
13th and Mission St.



Putting Pacific Coast Sales in the Palm of Your Hand

The salesman who can market more of your products over a bigger territory than any other one man is a jewel you are after, isn't he. Aren't you open to consider, then, the proffered aid of the biggest salesman on the Pacific Coast?

One of the greatest merchandising organizations the world has ever known, the Union Terminal Warehouse Company, Los Angeles, is offering you the services of a sales force and a warehousing system that can put your product into every channel of sale and move it faster than any other form of merchandising.

In face of this business-getting machine, a factory branch of your own is merely a toy. The possibilities Union Terminal service holds for you are unlimited. If you need a display room to add "special atmosphere" to your product, you'll find the Union Terminal plan a sales-getter.

The Union Terminal warehouses, docks, trackage, freight storing and moving facilities are the largest and best anywhere west of Chicago. But the great factor to interest you vitally is the new connecting link that brings the Union Terminal right square up to you, its sales department.

A big staff of sales specialists, schooled in the potentialities of the Pacific Coast region, works to bring you, the manufacturer, into contact with the largest number of buyers at the least possible expense. Your product meets all the jobbers, distributors and dealers—not just one or two—in minimum time.

If there's any special service a patron desires, we'll furnish that, too. Let us tell you more about Union Terminal advantages for you. Write now.

Union Terminal Warehouse Company

Seventh & Central Avenue,

Los Angeles, Calif.

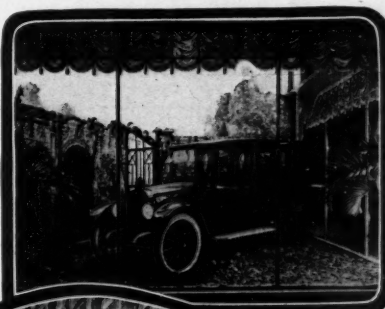
Other aids we offer you:

- We store your merchandise.
- We insure it at the lowest rate in the West.
- We look after your shipments.
- We collect your drafts and accounts.
- We distribute your samples.
- We make you reliable credit reports.
- We trace your cars and save you demurrage.
- We furnish offices for your representative's use.
- We loan you money on your warehouse receipts.
- We furnish you a special display room, if desired.
- We furnish you factory space and market your output.

This new building adds 500,000 fire-proofed, dust-proofed square feet to the largest warehouse system west of Chicago.

Special showroom sells goods

Ample switching facilities make speed



Union Terminal Warehouse Co.

BIRMINGHAM, ALA.

HARRIS TRANSFER AND WAREHOUSE COMPANY

(Equipped to Handle Anything)

MODERN FIREPROOF WAREHOUSE

Special Attention Given to Packing and Shipping

When shipping to Birmingham, consign goods to Harris
—he will look after your interests, also those
of your customer

Offices: CHAMBER OF COMMERCE BLDG.

BIRMINGHAM, ALA.

Wittichen Coal & Transfer Co.

12 South 20th Street

Transfer and storage of household goods. Packing and
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Haulage, Motor Service.

BUILDING MATERIAL DEALERS

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WAREHOUSING AND FORWARDING

Distributors of Pool Cars, Parcel Post Catalogs and
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TERMINAL WAREHOUSE COMPANY

109 - 111 RECTOR AVENUE

All track connection

BERKELEY, CAL.



STUDENTS EXPRESS & TRANSFER CO.

MOVING
STORING
FORWARDING

2132 SHATTUCK AVENUE

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Shattuck & Nimmo WAREHOUSE CO.

Storage and Distribution

Of All Non-Perishable Commodities

All cars handled at our own plant. No switch-
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Manufacturers and forwarders consolidating
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Local Rotary Club and Chamber of Commerce

SAN FRANCISCO, CAL.

BEST IN THE WEST



OUR SAN FRANCISCO WAREHOUSE

When you Ship to California
Remember to Ship to

BEKINS FIREPROOF STORAGE

Prompt and Intelligent Returns,
Your Customers Satisfied

Los Angeles
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San Francisco
13th and Mission St.



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Seventh & Central Avenue,

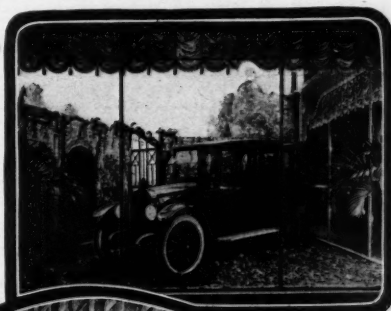
Los Angeles, Calif.

Other aids we offer you:

- We store your merchandise.
- We insure it at the lowest rate in the West.
- We look after your shipments.
- We collect your drafts and accounts.
- We distribute your samples.
- We make you reliable credit reports.
- We trace your cars and save you demurrage.
- We furnish offices for your representative's use.
- We loan you money on your warehouse receipts.
- We furnish you a special display room, if desired.
- We furnish you factory space and market your output.

This new building adds 500,000 fire-proofed, dust-proofed square feet to the largest warehouse system west of Chicago.

Special showroom sells goods



Ample switching facilities make speed



Union Terminal Warehouse Co.

OAKLAND, CAL.

NO TASK TOO GREAT
LAWRENCE
 WAREHOUSE COMPANY
 NO DETAIL TOO SMALL



SACRAMENTO, CAL.

NO TASK TOO GREAT
LAWRENCE
 WAREHOUSE COMPANY
 NO DETAIL TOO SMALL



SAN FRANCISCO, CAL.

HASLETT WAREHOUSE CO., THE

228 Pine Street, San Francisco

Will handle your interests in the Far West with excellence of service that has grown from years of experience in California territory.

Some Haslett Helps For You

We will store or forward your merchandise.
 We offer also U. S. Customs (Tea) Bonded Storage.
 Yard storage provided. Public Weighers.
 Warehouse receipts issued—collections made.
 Pool car distributing and reforwarding a specialty.
 Drier, cleaner and fumigator for beans, corn and other grains.
 Light hauling, city deliveries and general truck service.
 Handy location to retail districts and to freight stations.
 Low insurance rates.
 Every form of time-saving equipment.
 Any special service a client desires will be given personal and immediate attention.
 Coffee hulling, conditioning and hand picking.
 Track connections with all lines.

S. M. Haslett, President P. E. Haslett, Secretary

SAN FRANCISCO, CAL.

NO TASK TOO GREAT
LAWRENCE
 WAREHOUSE COMPANY
 NO DETAIL TOO SMALL



If Your City Isn't
Represented Here

Put it on the shippers' map by
inserting your card in this space.

DENVER, COLO.

THE WEICKER TRANSFER & STORAGE COMPANY

Office, 1017 Seventeenth Street

New Fireproof Warehouse on Track

Storage of Merchandise and Household Goods

Distribution of Car Lots a Specialty

Every Facility for Handling Safes, Boilers and Heavy Machinery. Complete Fleet of Motor Trucks and Modern Equipment

Members { American Warehousemen's Association
 Illinois Furniture Warehousemen's Association
 New York Furniture Warehousemen's Association
 Pacific Coast Furniture Warehousemen's Association
 Central Warehousemen's Club
 American Chain of Warehouses
 Southern Furniture Warehousemen's Association

HARTFORD, CONN.

Tel. Connection Office: 335 Trumbull St.

Safety Vaults for Silverware

GEORGE E. DEWEY & CO.

JOSEPH M. PELCHAT Proprietor

Local and Long Distance

FURNITURE AND PIANO MOVING

Packing, Crating and Shipping of
 PIANOS, FURNITURES, CHINA

Only Fireproof Storage Warehouse in Hartford

HARTFORD, CONN.

The Roger-Sherman Transfer Co.

Freight Forwarding—Moving

TEAMS
 AUTO-TRUCKS

GENERAL TRUCKING
 HEAVY RIGGING

1056 MAIN ST.

NEW LONDON, CONN.

B. B. Gardner Storage Co., Inc.

18 BLACKHALL STREET

PIANO AND FURNITURE PACKER, MOVER
 AND SHIPPER

Safe Mover—Freight and Baggage Transfer—STORAGE

WATERBURY, CONN.

The Ralph N. Blakeslee Co.

TRANSFER AND STORAGE

Special Facilities for Moving Heavy Machinery and Safes

Storage Warehouse for Merchandise

Separate Apartments for Furniture

WASHINGTON, D. C.

Moving
 Shipping
 Storing



Smith Transfer & Storage Co.

Office: 912 S Street, N. W.

Let Us Handle Your Washington Business

WE WILL PLEASE YOU

WASHINGTON, D. C.

Southern Transfer and Distributing Co.

727 12th STREET, N. W.
WASHINGTON, D. C.

Washington is the natural center of distribution for Maryland, Virginia, West Virginia, District of Columbia and Southeastern Pennsylvania.

We have had five years' experience in this class of work and are in a position to give maximum service at a minimum cost.

A FEW OF OUR CLIENTS:

Abilena Sales Co.	General Forwarding Co.
American Law Co.	Horlicks Malted Milk Co.
Burlingame Chemical Co.	Kress & Owen Co.
Belding Bros. & Co.	(Glyco Thymoline)
Bedford Springs Co., Limited	McKesson & Robbins
Detmer Woolen Co.	Lawyers Co-Operative Publishing Co.
French Lick Springs Hotel Co.	Pyro Chemical Co.
(Pluto Water)	S. S. White Dental Manufacturing Co.
Funk & Wagnalls	The Pineoleum Co., Inc.
	West Publishing Co.

Contracts made for the distribution of all kinds of advertising matter, trade papers, publications, calendars, samples and general merchandise,

by a uniformed force. Addressing and Mailing in all its Branches Re-Consigning, Forwarding and General Storage L. C. L. a Specialty

JACKSONVILLE, FLA.

Wiesenfeld Warehouse Company

P. O. Box 1133

General Merchandise Storage and Distributing

References:

Any bank, jobber or transportation man in the city

ATLANTA, GA.

CATHCART TRANSFER & STORAGE COMPANY

Moves, Stores, Packs, Ships
Household Goods Exclusively

Office and Warehouse, 6-8 MADISON AVE.

ATLANTA, GA.

MORROW TRANSFER & STORAGE COMPANY

COMMERCIAL STORAGE

Distributors—R. R. Trackage—Carloads a Specialty

Household Goods Moved, Stored, Packed and Shipped
180-184 MARIETTA STREET

ATLANTA, GA.

Warehousemen

Distributors

Southern Sales & Storage Co.

Markets secured for Meritorious Mdse.
Concrete Warehouse, R. R. Trackage,
Make our office your Southern Headquarters,
We have an efficient Sales Force.
13 Produce Place

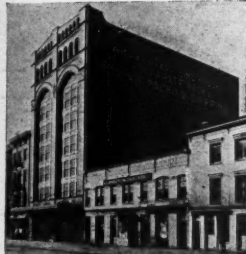
WASHINGTON, D. C.

UNITED STATES STORAGE CO.

418-420 TENTH STREET, N. W.

MEMBERS:

N. Y. Furniture Warehousemen's Association
Illinois Furniture Warehousemen's Association
Southern Furniture Warehousemen's Association



PROMPT REMITTANCES
Efficient and Courteous Service
MOTOR TRUCKS
and
PADDED VANS
Modern Fireproof Warehouse

BOISE, IDAHO

PEASLEY TRANSFER & STORAGE COMPANY

STORAGE, TRANSFER AND FORWARDING
NINTH AND GROVE STREETS

CHICAGO, ILL.

BEKINS HOUSEHOLD SHIPPING COMPANY

Reduced Rates on Household Goods, Automobiles and Machinery

General Offices, 805 BEDFORD BLDG., Chicago
NEW YORK, BOSTON, BUFFALO, CINCINNATI

JACKSONVILLE, FLA.

UNION TERMINAL WAREHOUSE COMPANY

EAST UNION and IONIA STREETS

55 Rental Compartments Track Capacity 52 Cars

Building of reinforced concrete with sprinkler system.
Low Insurance Rate. Sub-Post Office and branch
Western Union Telegraph. Joint Railroad Agent.
L.C.L. freight loaded direct for line of road.

GENERAL MERCHANDISE STORAGE AND FORWARDING

Special attention to handling of pool cars.

Pick Your Consignee

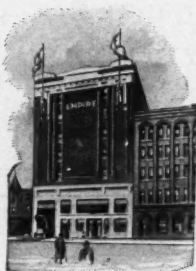
from the companies listed in this section—they are the "live wires" of the field and will handle your shipments promptly and efficiently.

It is also worth your while to earn their reciprocity.

CHICAGO, ILL.

EMPIRE

Storage Company



**MOVING
PACKING
SHIPPING**

Heated Piano Rooms
Art Galleries
Vaults for Valuables
Private Compartments
for Furniture
Automobiles Stored
Motor Truck Service

Convenient to All Railroad
Switches.

Modern FIREPROOF
Warehouses for Storage of
Household Goods



Established 1891

Capacity 1,500,000 cu. ft.
Low Insurance Rate.

General Office
52nd St. and
Cottage Grove Ave.
Chicago

MEMBERS:

Illinois Furniture Warehousemen's Association
New York Furniture Warehousemen's Association

CHICAGO, ILL.

Soo Terminal Warehouse Company

General Merchandise Storage and Distribution
Direct Rail and Tunnel Connection with All Trunk Lines.

519 West Twelfth St.

"THE ECONOMICAL WAY"

FORT WAYNE, IND.

BROWN TRUCKING COMPANY

MOVING, DISTRIBUTING, STORAGE AND
GENERAL TRANSFER—MOTOR SERVICE

Pool Cars a Specialty

Office, 125 W. Columbia Street

FORT WAYNE, IND.

Private Siding With All Railroads

Pettit's Storage Warehouse

FIRE PROOF BUILDING

ROOMS FOR HOUSEHOLD FURNITURE

General Merchandise Warehousing and Transferring
Factory Distributors

SOUTH BEND, IND.

Warner Warehouse Company

Merchandise Storage and Distribution
Branch House Service for Manufacturers

SOUTH BEND is a natural distributing center for
Michigan, Indiana and Ohio. Our warehouse is
located on New York Central tracks and we have free
switching connections with all lines entering the city.

518-524 South Pine St.

SOUTH BEND, INDIANA

H. A. PRUYNE, Manager

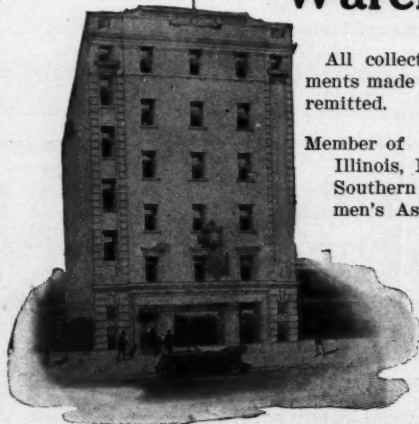
Members: { American Warehousemen's Association
Central Warehousemen's Club
American Chain of Warehouses

CHICAGO, ILL.

ESTABLISHED 1874

HEBARD

Storage Warehouses



All collections on ship-
ments made to us promptly
remitted.

Member of
Illinois, New York and
Southern Warehouse-
men's Associations.

Our Seventh Warehouse

now under construction on Broadway, near Devon Avenue, which
will handle all Rogers Park or North Shore shipments.

Warehouses A-B-C-D, West Side, Ogden and Winchester Aves.
Warehouses E-F, North Side, Sheridan Road and Sheffield Ave.
Warehouse G, North Side, Broadway near Devon Ave.

Pick Your Consignee

from

the companies listed in this
section—They are the "live
wires" of the field and will
handle your shipments
promptly and efficiently

INDIANAPOLIS, IND.



Our Service Consists of

Warehouse for Manufactured Articles.

Prompt shipment for all orders.

Prompt reports of shipments as you want them.

Trucks for Drayage Equipment.

We are, in fact, ready to be your Shipping Department.

Located in the heart of the U. S. A., within 12 to 24 hours of your customers in Indiana, Ohio, Illinois, Kentucky and Michigan.

Insurance rate, 30c—extra hazardous goods not taken.

Six-story and basement, heavy mill construction, sprinkler equipped, A. D. T. Watchman Service. 150,000 square feet heated to 50°.

We solicit your business and refer you to any of our customers as to our ability to do it right.

Railroads:

Penna. Ry.; C. C. C. & St. L. Ry.; C. I. & W. Ry.; L. E. & W. Ry.; Ills. Central Ry.; C. I. & L. Ry.
18 Traction Freight Lines.

The Indianapolis Warehouse Co., Inc.

FRANK A. TODD, V. P. and Gen'l Mgr.

West New York and Canal

INDIANAPOLIS

INDIANA

INDIANAPOLIS IND.

We Have the Very Best of Equipment for Handling Heavy Machinery, Boilers, Engines, Tanks Vaults and Safes for Erecting Smoke Stacks



INVESTMENT \$200,000.00

We have just completed one of the most modern fire-proof warehouses in the country—centrally located on a privately owned railroad switch accommodating eight cars.

We are equipped to give the very best service in all kinds of moving and packing. All shipments consigned to our care will receive prompt attention and our twenty-five years' experience and reliability insures this service.

HOGAN TRANSFER & STORAGE CO.

Member
N. F. W. A. and I. F. W. A.

Established
1892

If Your City Isn't Represented Here

Put it on the shippers' map by inserting your card in this space.

LOUISVILLE, KY.

SAFETY

TRANSFER & STORAGE CO., INC.

Office 105 S. Hancock St.

HOUSEHOLD GOODS

Moved, Packed, Stored, Forwarded

AUTOMOBILE AND TRACTOR STORAGE

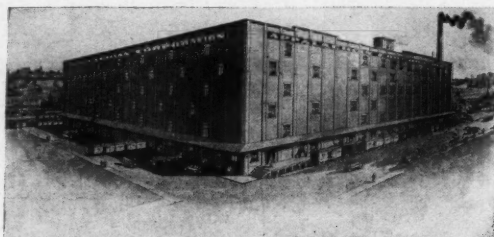
Members I. F. W. A.

Pick Your Consignee

from the companies listed in this section—they are the "live wires" of the field and will handle your shipments promptly and efficiently.

NEW ORLEANS, LA.

APPALACHIAN SERVICE



**SPACE—STORAGE—DISTRIBUTION
and FORWARDING**
To the WORLD'S COMMERCE
Through the
PORT OF NEW ORLEANS, U. S. A.

STORAGE We own the Largest Modern Public and Government Bonded Warehouse in the South. Contains 7,500,000 cubic feet, equal to more than 14 acres of surface storage facilities, caring for 3,000 carloads of material at one time. Our sidings have a capacity of 24 cars. Direct connection with all railroad and steamship lines entering New Orleans.

DISTRIBUTION Our facilities for giving our clients a Perfect Distribution Service are unequalled by any warehouse in the Southern States.

FORWARDING We maintain a well organized Freight Forwarding Department for both Import and Export business. We secure lowest freight rates, attend to validation of bills of lading, take out consular invoices, render customs service and deliver merchandise in proper time and condition to steamer or railroad.

FOR SERVICE ADDRESS

APPALACHIAN CORPORATION

INC. OF LOUISIANA

LOUIS B. MAGID, President

South Peters, Thalia, South Front and Erato Streets

NEW ORLEANS, U. S. A.

"The City of New Opportunities"

SPECIAL

Our Negotiable Receipts are Current in all financial centers. When desired we assist. We also arrange Marine Insurance and Advances on Carload Shipments.

BALTIMORE, MD.

Phone Gilmor 3000.

THOS. H. VICKERY, President.

BALTIMORE STORAGE & MOVING COMPANY

1710 to 1720 Edmondson Ave.

Members { N. Y. F. W. A.
Balt. F. W. A.

Fireproof Wh's'e in rear

BALTIMORE, MD.

Leonidas Levering, Pres.

CENTRAL WAREHOUSE CO. STORAGE—TRANSFER—SHIPPING

517-525 W. Baltimore St.

"DISTRIBUTING AGENTS"

Consign Your Pool-Cars Direct to Us. We Handle Everything

"EXPERT SERVICE"

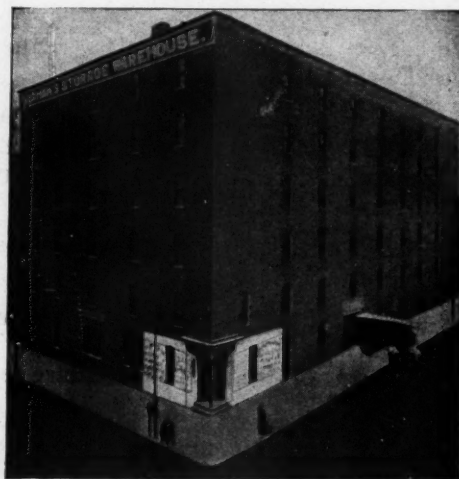
"LOW FIRE INSURANCE"

BALTIMORE, MD.

Graham's Storage Warehouse

The Largest in Baltimore

Established 1887 GEO. D. MAGRUDER, Pres. and Gen'l Manager



800 Storage rooms, one to ten Van load capacity. Vans load and unload in the centre of the building.

MOVING — PACKING — SHIPPING
MOTOR EQUIPMENT

Send us your Baltimore Consignment

Members, N. Y. F. W. A. — I. F. W. A. — Baltimore, F. W. A.

**If Your City Isn't
Represented Here**

Put it on the shippers' map by inserting your card in this space.

BALTIMORE, MD.

THE KAUFMAN Fire-proof Storage Warehouses



BALTIMORE, MD

Send your Baltimore shipments to
MONUMENTAL STORAGE COMPANY



BALTIMORE, MD.

Fred I. Savage George P. Savage

THE SAVAGE TRANSFER CO. TRANSFER AND LIVERY

We Haul Anything, Anywhere, Any Time, by Motor or Horse-Drawn Vehicles

C. & P. PHONES: SOUTH { 321
1657

1202-4-6-8-10-12-14 Race Street, BALTIMORE, MD.
Storage Warehouse: 529 W. Lee St. Garage: 118-120 W. West St.
THEATRICAL HAULING A SPECIALTY

BALTIMORE, MD.

Security Storage & Trust Company

15 W. North Avenue

FIREPROOF WAREHOUSES

MOTOR EQUIPMENT

**EFFICIENT SERVICE
TO WAREHOUSEMEN**

Members of
Baltimore Furniture Warehousemen's Association
New York and Illinois Warehousemen's Association

BOSTON, MASS.

Established 1880

T. G. BUCKLEY CO.

MOVERS OF HOUSEHOLD GOODS AND PIANOS
MOTOR TRUCK SERVICE

REINFORCED CONCRETE WAREHOUSE

OFFICE and WAREHOUSE, 690 DUDLEY STREET
Members N. Y. F. W. A.

BOSTON, MASS.

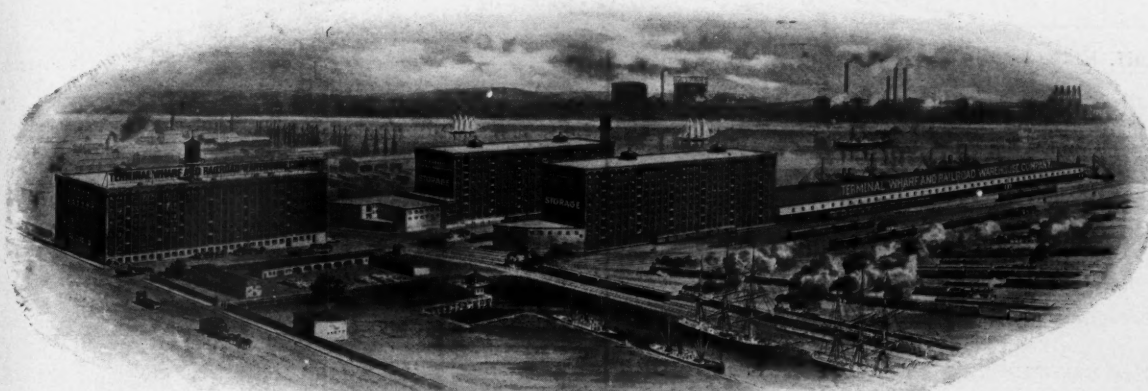
H. H. WIGGIN, PRESIDENT

S. G. SPEAR, TREASURER

TERMINAL WHARF AND RAILROAD WAREHOUSE COMPANY

50 Terminal Street

Charlestown District, Boston



Storage of Wool, Cotton and General Merchandise

LOWEST INSURANCE RATES
DIRECT TRACK CONNECTIONS
BOSTON & MAINE R. R.

SHIPPING DIRECTIONS
MYSTIC WHARF
BOSTON, MASS.

Fumigation of Foreign Cotton and Cotton Waste

AND OTHER MATERIALS AS REQUIRED
BY U. S. GOVERNMENT

CARTAGE TO AND
FROM FREIGHT STATIONS
AND BOAT LINES

WEIGHING, SAMPLING, AND ALL
SERVICES USUALLY PERFORMED
BY AN UP-TO-DATE WAREHOUSE

We will Lease or Build to Suit Tenants

HOLYOKE, MASS.**Sheldons Transfer & Storage**

ESTABLISHED 1870

Main Office 637 Main St.

Branch Office 81 Main St

SPECIALISTS IN POOL CARS

Storage Space, 50,000 sq. ft. N.Y.N.H.&H. and B.&M. Sidings

HOLYOKE, MASS.**Holyoke
Warehouse Co.**

Park and Crescent Streets

Modern Fireproof
Warehouse

B. & M. R. R. Siding

We specialize in Merchandise Distribution, Pool Cars or Spot Stocks, Yard Storage, New Autos, Trucks, Farm Implements and Machinery.

TRY OUR SERVICE

Heavy Haulage

Truck Service

DETROIT, MICH.**GENERAL STORAGE AND
CARTAGE CO.**

Main Offices:

Grand River and Lorain Avenues

GENERAL MERCHANDISE STORAGE

Forwarding, Distributing and Reshipping Agents. Custom House Brokers—Expert Traffic Service

SHIP US YOUR CARLOADS FOR DISTRIBUTION

50 Car Track Space on M. C. R. R. and Grand Trunk Motor Trucks—1 to 10 Tons Capacity

BAY CITY, MICH.

G. VAN HAAREN

V. VAN HAAREN

**P. Van Haaren & Sons Storage Co.
FIRE PROOF STORAGE**Steel Compartments for Furniture Storage
GENERAL TRANSFER LINE
MOTOR TRUCK SERVICE

Est. 1880

BAY CITY, MICHIGAN

NEW BEDFORD, MASS.**NEW BEDFORD STORAGE
WAREHOUSE CO.**

Modern Sprinklered Warehouses, Approximately 400,000 sq. ft. Floor Space.

Low Insurance Rates

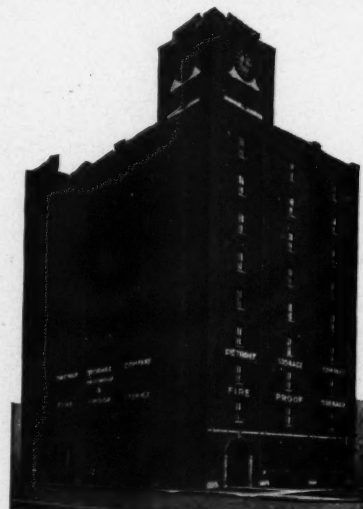
Excellent Rail and Water
Connections

N. Y., N. H. & H. R. R. and New Bedford Line, from Pier 40, North River, New York. Daily sailings.

We operate a large, modern pier and storage shed on 25-ft. channel.

Distribution and Pool Car
Shipments Solicited**DETROIT, MICH.**

DETROIT'S LEADING MOVERS.

Detroit Storage Co.Main Office and Fireproof Warehouse
MOVING, PACKING, SHIPPING
MOTOR EQUIPMENTCorner East Grand Boulevard and Beaubien St.,
DETROIT, MICH.

DETROIT, MICH.

TURNER CARTAGE COMPANY

Phone
Main
2660

Shipments of household goods and merchandise will be handled under personal supervision of company officials.

334-340 Lafayette Blvd., DETROIT, MICH.

GRAND RAPIDS, MICH.

Shank Fireproof Storage Company

Largest Fireproof Storage Warehouse in Western Michigan.
Merchandise and Household Goods.

Members I. F. W. A.

MINNEAPOLIS, MINN.

The Gateway to the Great Northwest

We can handle your
Entire Distribution
Throughout the
NORTHWEST

Consign Your Shipment to
**THE MINNEAPOLIS TERMINAL
WAREHOUSE COMPANY**
Minnesota Transfer

If the City to which you are shipping is not represented in this list, choose the nearest as the geographical arrangement will help you.

ST. PAUL, MINN.

The Central Warehouse Co.

Minnesota Transfer, Minn.

**Merchandise, Bonded and Cold Storage
Industrial Sites**

At the junction of nine railroads, midway between the Twin Cities. L. C. L. shipping without carting. Motor trucks for local deliveries. 40 acres of ground. Six miles of trackage operated by our electric locomotives.

BILLINGS, MONTANA

Billings Warehouse & Trading Co.

Incorporated

204-216 North 21st Street

Branch House Service for
National Distributors

Investigate the immense and rapidly developing territory for which Billings is the best distribution center.

MISSOULA, MONT.

Security Warehouse & Transfer Co.

(Incorporated)

Warehousing of every description: Storing, Packing, Carting, Shipping. R.R. Siding. Manufacturers' distributors. We solicit your Western Montana shipments.

If Your City Isn't Represented Here

Put it on the shippers' map by inserting your card in this space.

KANSAS CITY, MO.

**QUICK ACTION WINS
IN THE BATTLE FOR BUSINESS!**

We borrow other people's shipping and distribution problems and turn them into results.

Fireproof Warehouses and Distribution Docks.

L. T. CRUTONER WAREHOUSE CO.

Distribution and Warehousing

1411 St. Louis Ave.

Kansas City, Mo.

KANSAS CITY, MO.

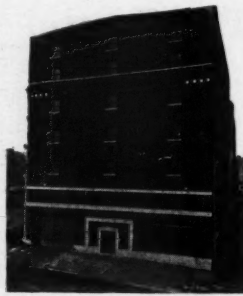
Fireproof Warehouse
Convenient to All
Freight Depots

Send your consign-
ments in our care

Members of I. F. W. A.

L. Leritz & Son

2616-18-20 Warwick



Ins. Rate 22c

Pick Your Consignee

from the companies listed in this section—they are the "live wires" of the field and will handle your shipments promptly and efficiently.

*It is also worth your while
to earn their reciprocity.*

KANSAS CITY, MO.

Are You Giving Your Customers Service?

The present congested conditions of our railroads and slow movement of less than carload freight, and the possibility of embargoes on many commodities, make it more imperative than ever that you carry suitable stocks of your goods at important Western distributing centers to properly take care of your trade in that territory.

We invite you to make use of our warehouse as a branch of your own establishment for this purpose. Our building is of modern fireproof construction and equipment—automatic sprinkler system—low insurance rates—free switching of carloads. Ample teaming equipment and twenty years of knowing how, insures prompt, efficient and satisfactory service.

D. A. MORR

TRANSFER & STORAGE COMPANY

Members { Central Warehousemen's Club
American Chain of Warehouses
American Warehousemen's Association
Illinois Furniture Warehousemen's Association
New York Furniture Warehousemen's Association

Please mention this paper

ST. LOUIS MO.

A Transfer Company with an Ability to Serve

ST. LOUIS

**America's Fourth
Largest City**

Nine Freight Depots; One Mile of Platforms

More than 250,000 Square Feet of Storage
and Warehouse Space

225 Teams and 75 Motor Trucks

We are especially well equipped for the prompt handling of consolidated cars for distribution both locally and for points beyond. When consigned care Columbia Transfer Company (La Salle Street Station) you get the benefit of **Daily Package Car Service** from St. Louis to the West, Southwest and Southeast.

**Leased Motor Truck
Service** • By Hour, Day or
Contract •

**COLUMBIA
TRANSFER CO.**

**America's Largest
Transfer
Organization**

\$2,000,000 Capital

OMAHA, NEBR.

Gordon Fireproof Warehouse & Van Co.

Main Office: 219 NORTH 11th STREET

Six warehouses covering over one city block. 200,000 square feet of floor space. Four warehouses equipped with automatic sprinkler systems.

Warehouses served by private tracks on the C. B. & Q. and the C. & N. W. (joint track); and the Illinois Central. All roads absorb switching charges.

Accommodations for brokers, jobbers, automobile manufacturers and dealers.

Household Goods Packed, Stored and Forwarded

MOVING — TRANSFER — FORWARDING

MEMBER { New York Furniture Warehousemen's Association.
Illinois Furniture Warehousemen's Association.
Central Warehousemen's Club.
Pacific Coast Furniture Warehousemen's Association.

OMAHA, NEBR.

THE
"CITY OF OPPORTUNITY"

Represented by the

Pacific Storage & Warehouse Co.

1007-9-11 JONES STREET

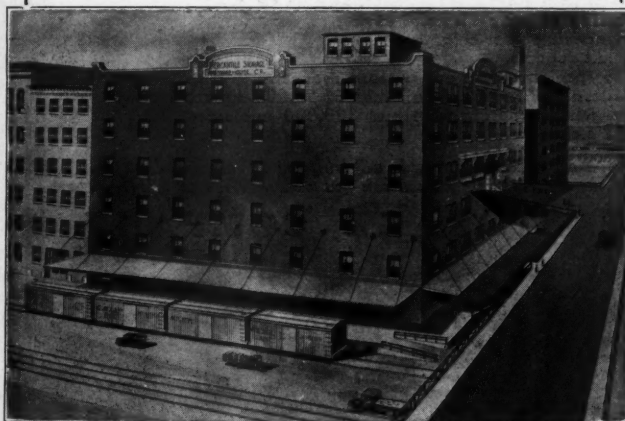
We have studied the problems of the national distributor of manufactured articles and merchandise and have both the experience and facilities to care for business of this kind in a way that will satisfy the most critical.

Write us about the goods you have to be distributed in this territory and we shall be glad to quote prices for delivery, storage or reshipping.

**MOTOR TRUCK SERVICE — 75,000
SQUARE FEET OF STORAGE SPACE**

Members of the Central Warehousemen's Club

OMAHA, NEBR.



NEW FIRE PROOF BUILDING

1,500,000 Cubic Feet Storage and Leasing Space, Sample Rooms, Office Space, Merchandise, Storage and Distribution Exclusively.

Mercantile Storage & Warehouse Company

Omaha, Nebraska.

We Specialize in Merchandise Distribution

CAMDEN, N. J.

Established 1903

Troth's Model Warehouses

5th and Byron Streets

MANUFACTURERS' DISTRIBUTORS

Correspondence Solicited

Direct Delivery Service Throughout Philadelphia

ATLANTIC CITY, N. J.

ELDRIDGE EXPRESS and STORAGE WAREHOUSE CO.

Office: 110 N. South Cardina Avenue

Inter-City Auto Service

Heavy Hauling



Railroad
Siding and
Storage Yard

Storage for
Goods and
Merchandise

Piano Moving

Phone 108

EAST ORANGE, N. J.

Established 1887

R. T. BLAUVEL T. Pres.

LINCOLN STORAGE WAREHOUSES

FIREPROOF NON-FIREPROOF MOTOR EQUIPMENT

Members of New Jersey—New York—Illinois—Southern
Warehousemen's Associations

Principal Office, 85 MAIN STREET

NEWARK, N. J.

LYON STORAGE

Newark's Unexcelled Rail Facilities

These lines have full terminal service in Newark

Lehigh Valley
Pennsylvania
Delaware, Lack-
awanna and
Western-Union
Essex Division
Central of New
Jersey
Erie

Here's a New York Warehousing Service at Reasonable Rates

You storage men know "sky high" New York unloading and distribution cost.

But do you know you can get New York service from the Lyon Storage Company at Newark, N. J., at way below New York rates?

You can, and you will get service, with all the "trimmin's." Better write us today, and open up this big opportunity for economizing, right away.

Newark has as ample railroad facilities as are found on the Atlantic seaboard. Newark is only a few minutes from Greater New York—almost a part of it.

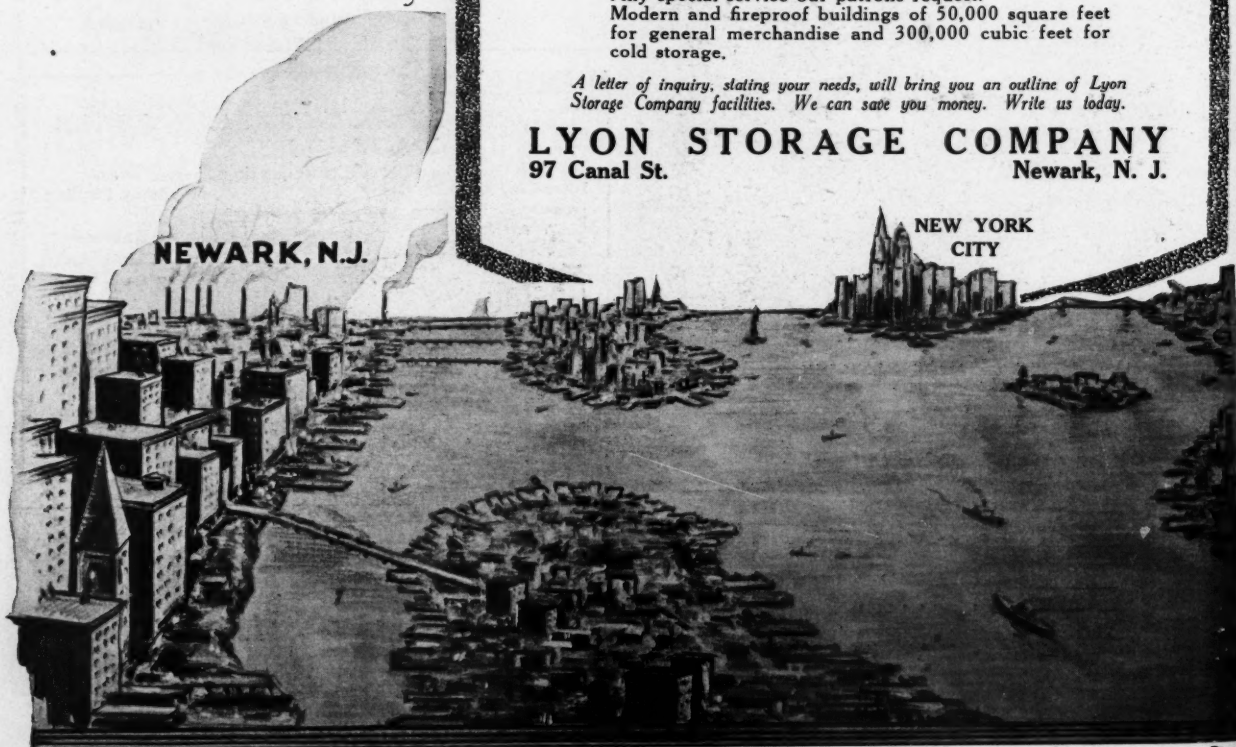
You can use the Lyon Storage Company facilities as a reservoir from which to make your New York and other Eastern distribution. Water facilities are offered at most reasonable charge.

We have the trucks to put your product anywhere in the Greater New York field, as cheaply as you could move it from any point within Greater New York. Other Lyon warehousing aids we offer you:

Salesroom for your use.
Finest cold storage equipment.
Tracing of your cars and saving of demurrage.
Supervising your shipments.
Credit reports.
Any special service our patrons request.
Modern and fireproof buildings of 50,000 square feet for general merchandise and 300,000 cubic feet for cold storage.

A letter of inquiry, stating your needs, will bring you an outline of Lyon Storage Company facilities. We can save you money. Write us today.

LYON STORAGE COMPANY
97 Canal St. Newark, N. J.



HOBOKEN, N. J.

FREIGHT STORAGE
5 BLOCKS FROM D. L. & W. FERRIES

LOW INSURANCE
RATES ON REQUEST

HUDSON STORES, INC.

Office and Warehouse:
 Ferry Street and Park Avenue, Hoboken, N. J.
 Phones—Hoboken 1810-1811-1812

NEWARK, N. J.

Estab. 1850 Jos. V. Lupo, Pres. & Treas.
 John F. Lupo, Sec.

JOB De CAMP, INC.
80 PARK PLACE

Transfer of Household Goods Storage of Household Goods
 Freight, Heavy Haulage, Mdse., New Autos, Imple-
 Motor Service ments, Yard Storage.

Factory Distributors
 N. J. W. A. Member of A. W. A. and N. Y. F. W. A.

NEWARK, N. J.

ESTABLISHED 1864

SHIP TO NEWARK'S
 LEADING FURNITURE WAREHOUSE

KNICKERBOCKER STORAGE
WAREHOUSE COMPANY

JOHN MULLIGAN, Pres. GEO. L. BARBER, Gen. Mgr.
 100-106 Arlington Street

MOVING PACKING SHIPPING
[MOTOR EQUIPMENT]

MEMBERS N. Y. F. W. A. and N. J. F. W. A.

NEWARK, N. J.

The McGANN Co., Inc.

Offices, 100 Front Street Telephone 1620 Market.
 Merchandise Storage, Trucking and
 Distributors

NEWARK, N. J.

Model Storage Warehouses

54-56 Belleville Ave.

NEWARK, N. J.

Known All Over the
 UNITED STATES

for their
 EFFICIENCY

IN HANDLING HOUSEHOLD GOODS SHIPMENTS
 IN NEW JERSEY

NEWARK, N. J.

F. H. Mooney, President

Est. 1882

Mooney's Storage Warehouses

Offices: 556-8 Market Street, Newark, N. J.

Phones: 4370-1 Mulberry

Merchandise Storage, Distributors. Centrally located to
 all Railroad Terminals. Daily Motor Service to New York
 City and Vicinity.

TRENTON, N. J.

"Expert Service"

Arcade Express & Storage Co.

Harry A. Douglass, Prop.

Merchandise and Furniture Storage Warehouse

Distributors and Forwarders
 In Main Business Section of City

Motor Van Service

13-17 East State Street, Trenton, N. J.

Bill via any R. R.

TRENTON, N. J.

Petry
Express & Storage Co.
 (INCORPORATED)

STORAGE WAREHOUSES

MERCHANDISE and HOUSEHOLD GOODS

MOVERS—PACKERS—SHIPPERS

MOTOR VAN SERVICE

Carloads Distributed. Manufacturers' Distributors.
 Members N. Y. F. W. A. and I. F. W. A.

ALBANY, N. Y.

SECURITY

STORAGE & WAREHOUSE CO., INC.

Jas. G. Perkins, Custom House Broker

1 DEAN STREET

Storage, Transferring and Forwarding

Direct Track Facilities

Pool Car Distribution

BINGHAMTON, N. Y.

THREE
 WAREHOUSES
 33 Years in Busi-
 ness

Merchandise
 Distribution
 and Pool Car
 Shipments Given
 Especial
 Attention

Storage of House-
 hold Goods,
 Merchandise,
 Implements and
 Machinery.
 Auto Trucks
 Heavy Haulage



COLE & GRAY

203 State Street

Binghamton, N. Y.

BINGHAMTON, N. Y.

Member Chamber of Commerce

JOHN B. SOUTHEE
STORAGE WAREHOUSE AND VAN OFFICE
MOVING AND TRUCKING OF ALL KINDS
178 STATE STREET

Office Phone 1366
House Phone 1799Residence,
60 Moeller St.**BRONXVILLE, N. Y.****Gramatan Warehouse**

New, Modern and Up-to-Date Furniture
Warehouse Under Construction

ORDERS ACCEPTED FOR COMING SPRING

PACKING—MOVING—STORAGE

R. R. Siding on N. Y. Central R. R.

FRANK B. VALENTINE
MANAGER

Telephones:
Day—Bronxville 1456
Night—Mt. Vernon 328-M

BROOKLYN, N. Y.Cable Address, *Jenkinlis*
Western UnionLong Distance Phones
3100-3101-3102 Bedford

ABSOLUTELY FIREPROOF

Long Island Storage Warehouses

Nostrand and Gates Avenues

BRANCH WAREHOUSES

881-891 Park Avenue

781-789 Kent Avenue

To save delay in consignments for delivery to any part of New York City or Brooklyn, mark goods in our care to "Eastern District Terminal, Brooklyn." This is the center of Greater New York—no delay due to congestion.

Try shipping this way. We know**BUFFALO, N. Y.**

Monarch Storage & Warehouse Co., Inc.
"SERVICE"

In distribution of goods for National Merchandisers.
286-308 Elm St., Buffalo, N. Y.

BROOKLYN, N. Y.

Established 1889

Chas. D. Strang's
Montauk Storage Company

195 So. PORTLAND AVE.

Send your shipments to Brooklyn in my care.
Both your customers and yourself will receive
prompt, careful and courteous attention.

Storage, Moving, Packing and
Shipping of Household Goods.

N. Y. F. W. A.

I. F. W. A.

S. F. W. A.

BUFFALO, N. Y.

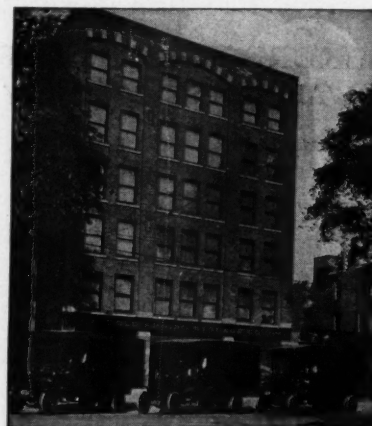
BUFFALO
STORAGE & CARTING COMPANY

STORAGE, TRANSFER AND
FORWARDING

Warehouse on New York Central Tracks

BUFFALO, N. Y.

WE WILL LOOK AFTER YOUR INTEREST,
ALSO THAT OF YOUR CUSTOMERS



OUR large, specially-built, six-story household goods warehouse is one of the finest between New York and Chicago. (Capacity 1000 van loads.) With our corps of expert workmen and unequalled facilities, we can render prompt and efficient service to your Buffalo patrons.

*Furniture Stored, Packed or Shipped
to Any Part of the World*

Convenient to the railroad switches
Motor Trucks for Prompt Delivery

Low Insurance Rates
Fireproof Vaults

COLD SPRING STORAGE COMPANY
1432-1442 Main Street

J. W. POWELL, President and General Manager
Members of Buffalo Chamber of Commerce, Illinois Furniture Warehousemen's Ass'n, New York Furniture Warehousemen's Ass'n.

BUFFALO, N. Y.**O. J. GLENN & SON**

Everything in the Line of Moving,
Carting, Packing, Storage

OFFICE: 204 TERRACE STREET

ELMIRA, N. Y.

Elmira Storage & Sales Co., Inc.

BEST DISTRIBUTING POINT in Western New York and Pennsylvania.

Warehouse, 50,000 square feet floor space, can accommodate 100 cars of merchandise.

Free switching privileges D., L. & W., Erie, Penna. and L. V. railroads. Switch enters building; can load and unload under cover.

General Merchandise and Storage. Forwarding and Transferring a specialty.

Competent help in office and warehouse. We can be used as a branch house at no extra expense.

We do our own trucking.

FLUSHING, N. Y.

Blackham Storage & Trucking Co. INC.

We do a general storage, moving, carting and packing business covering Flushing and Long Island. Try our service, you'll like it.

OFFICE: 72-74 GROVE ST., FLUSHING, NEW YORK

GLENS FALLS, N. Y.

H. A. STEVENS & SON

Furniture and Merchandise Storage. Local and Long Distance Moving Packing, Crating.

NEW YORK, N. Y.

"Every Room is an Actual Vault"

Atlas Fireproof Storage Warehouse Co.

157-159 West 124th Street (near Seventh Ave.)

Moving—Packing—Storing—Shipping
A terminal of every railroad in immediate vicinity. Bill "Harlem Terminal." Automobiles taken in dead storage.

Consign your shipment to us for proper attention.

NYFWA

VOA

ELMIRA, N. Y.

WE SHIP SUDDEN

Located Main Line—D. L. and W. R. R. and Erie, Pa., L. V. railroads.

Best Warehouse in the Southern Tier.
Low insurance.

Reference: Second National Bank, Chemung Canal Trust Co. and many mercantile houses.

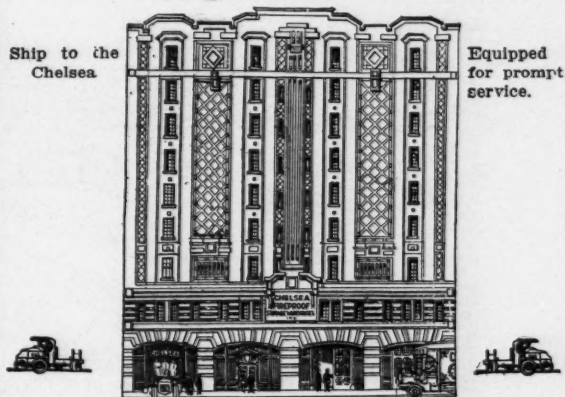
JOSEPH BIMBERG SONS
Elmira, N. Y.

NEW YORK, N. Y.

Chelsea Fireproof Storage Warehouses, Inc.

COMPLETE SERVICE TO SHIPPERS

Storage, Moving, Packing, Shipping, Express and General Trucking



Our Harlem Warehouse

Chelsea Fireproof Storage Warehouses, Inc.

LOUIS SCHRAMM, Pres. WM. F. HAHN, Secy and Treas.

Main Office
426-434 West 26th St.

Harlem Branch
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Members of

New York Furniture Warehousemen's Association
Illinois Furniture Warehousemen's Association
The Merchants' Association of New York

NEW YORK, N. Y.

Metropolitan

Fireproof Storage Warehouse Co.

14-39-41 WEST SIXTY-SIXTH STREET

Near Central Park

CHARLES S. MORRIS, Pres. and Treas.

LAWRENCE S. MORRIS, Sec'y and Gen. Manager

We Bid for Your Business on a Basis of Service—"We Know How"

**TWO FIREPROOF BUILDINGS
MOTOR OR HORSE-DRAWN VANS
AN EFFICIENT PACKING FORCE**

Adjacent to all Freight Terminals

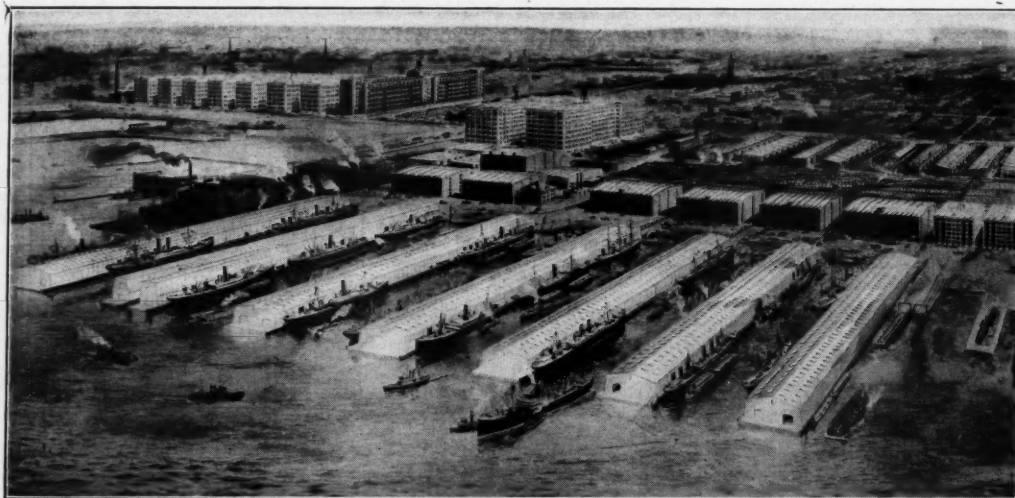
ESTABLISHED 1875
"That means something"

Members of New York Furniture Warehousemen's Ass'n.
Illinois Furniture Warehousemen's Ass'n.
Southern Furniture Warehousemen's Ass'n.
Van Owners' Ass'n of Greater N. Y.
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LARGEST WAREHOUSE AND TERMINAL FACILITIES IN THE WORLD



Industrial Center of America's Greatest City

City of warehouses—America's terminal—Bush Terminal.

Here, one of the largest assemblages of dockage, shipping, storing, and distributing facilities in the world.

Here, over two million square feet of storage space.

Here, thirty miles of privately owned railroad trackage joining every large American railroad.

Here, an admirable labor market.

Here, a location where a manufacturer can make, market, and ship his goods to the world's four corners.

Hundreds of other facilities offered by Bush Terminal to manufacturer, shipper, dealer or wholesaler.

We repack, relabel, reship. We store, forward or display goods of every description.

Low cost and high service value should interest you now. Get in touch with us at once.

BUSH TERMINAL COMPANY

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SOLVES SHIPPING AND DISTRIBUTING PROBLEMS OF EVERY SORT

NEW YORK, N. Y.

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Three large fireproof storage warehouses adjacent
to Washington Heights and all counties
in Westchester section

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Storage Warehouses
and Motor Vans

MOVING STORAGE PACKING

Our reputation in handling collections on consign-
ments is your guarantee in selecting us as your
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*Furniture and Works of Art Boxed
and Shipped to all Parts of the World*

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Cable Address: MORGANWARE

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Mott Haven Storage Warehouse Co.

Fireproof and Non-fireproof Warehouses
Factory Distributors — Motor Service

Adjacent to all Bronx Terminals. Economic and
Satisfactory Service

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Merchandise Storage and Distribution
Centrally Located To All RR Terminals

If the city to which you are ship-
ping is not represented in this list,
choose the nearest as the geographi-
cal arrangement will help you.

NEW YORK, N. Y.

**Largest Bonded and Free Warehouse
and Pier System in the Western
Hemisphere**

Occupying approximately 2½ miles of the Brooklyn
waterfront.

159 bonded and free warehouses having a storage ca-
pacity of 65,435,000 cubic feet or 116.2 acres of floor
space.

34 PIERS
20 MANUFACTURING BUILDINGS
3 RAILROAD TERMINALS

Buildings for lease with lighterage and railroad facilities

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44 Whitehall Street, New York

Calendar showing map of New York Harbor sent on request

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"EXPERT SERVICE PAYS"

**MOVING PACKING
SHIPPING**

VAULTS for STORING PACKAGES
of SILVER PLATE and VALUABLES

Our central location and modern equipment
enable us to offer you an unusually efficient
service for your New York consignments.

Members of New York Furniture Warehousemen's Association
Illinois Furniture Warehousemen's Association

THE WEST END STORAGE WAREHOUSE

Grant Wayne, Manager

Louis J. Crumm, Supt.

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Consign all C. L. & L. C. L. Ship-
ments for Delivery to Warehouse

B. & O. R. R.—135th St. and
Harlem River Station
C. R. R. of N. J.—132d St. and
S. Boulevard Station
D. L. & W. R. R.—135th St.
and Harlem River Station
Eric R. R.—135th St. and Har-
lem River Station
Lehigh Valley R. R.—E. 124th
Street Station
L. I. R. R.—Harlem and Mor-
risania Station
N. Y. C. & H. R. R.—130th
Street Station
N. Y. N. H. & H. R. R.—Har-
lem River Station
Penn. R. R.—E. 125th Street
Station
West Shore R. R.—130th Street
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NEW YORK, N. Y.



Weighing, Sampling
Re-coopering, Forwarding.
Williams Shipping Agency, Inc.
24 Stone St. Tel. Broad 856

WILLIAMS SHIPPING AGENCY BIG 4

Custom House License 306 Est. 1886



WILLIAMS' Import & Export Trucking Service

We Operate 40 Six-Ton Trucks.
Carloads Distributed. Deliveries to all Railroads and Steamships.
WILLIAMS SHIPPING AGENCY, Inc.
Office: 24-26 Stone St. Tel. Broad 856
Warehouse: 168 Front St. Tel. 1943 John
NEW YORK

EXPORT PACKING

We are prepared to properly pack and bale goods for Export: make up Packing Lists in Pounds or Kilogrammes. Consular Invoices in all languages. Also, Weighing, Sampling, Cooperage, Trucking, Lightering and Forwarding.

WILLIAMS SHIPPING AGENCY, Inc.
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Import--Export Trucking and Lighterage

CARLOAD LOTS OUR SPECIALTY

Freight Delivered to all Railroads and Steamships.

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Broad New York

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Vandam Warehouse Co., Inc.

General Offices—No. 29 Broadway
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Phone Whitehall-353.

8 CITY WAREHOUSES

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Waterfront Pier and Warehouses:
MARINERS HARBOR, STATEN ISLAND

NIAGARA FALLS, N. Y.

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TRANSFER AND STORAGE OF
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MACHINERY AND SAFE MOVING A SPECIALTY
"Unexcelled SERVICE"

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Arthur S. Blanchard, President and Treasurer

Blanchard Storage Co., Inc.

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HOUSEHOLD GOODS
Rochester "Chief" Rug and Carpet Cleaners
Allen and N. Washington Streets

Packing
Shipping

Members New York and Illinois Furniture Warehousemen's Association

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JOSEPH A. SCHANTZ COMPANY

173-219 CENTRAL AVENUE



We have every facility for handling your Rochester shipments

Two Fireproof Warehouses
Two Non-fireproof Warehouses
Large Fleet of Modern Motor Vans

By mailing your Rochester bills of lading to us you are guaranteeing the most prompt and courteous service to your patrons. You are also protecting your own interests, because we will return all collections promptly and watch the details carefully.

Member of New York Furniture Warehousemen's Ass'n.

ROCHESTER, N. Y.

Storage, transfer and forwarding of general merchandise. Only warehouse situated in center of city on N. Y. C. R. R. siding. Equipped with sprinkler system. Lowest insurance rates.

MONROE WAREHOUSE CO., INC.,

55-83 Railroad Street

Rochester, N. Y.

ROCHESTER, N. Y.**ROCHESTER CARTING CO.**

Members New York Warehousemen's Association
Distributors of Car Load Freight

Unsurpassed facilities for Storing, Transferring and Forwarding
Merchandise and Household Goods
Two Large Storage Warehouses

162-164 ANDREWS STREET

SYRACUSE, N. Y.**King Storage Warehouse, Inc.**

Opposite N. Y. C. West St. Station

**COMMERCIAL and FURNITURE
STORAGE****PRIVATE RAILROAD SIDINGS****DISTRIBUTING SERVICE**

Carload or less carload shipments will receive prompt and careful attention. This branch of warehousing has been a specialty with us for over twenty years. We maintain our own delivery service.

HOUSEHOLD GOODS

We solicit your Syracuse business. Motor delivery service. Careful attention to collections. Satisfaction to yourself and customer guaranteed.

FOR SAFETY WE SHIP FURNITURE IN THE KING SHIPPING
CASE

SCHENECTADY, N. Y.**SCHENECTADY**

is a natural Distributing Center. We make a specialty of L. C. L. Forwarding and Distribution of Pool Cars.

Two up-to-date Warehouses. Track connections with all Railroads entering City.

Storage of Household Goods, Merchandise, Implements, Yard Storage. Heavy Haulage. Motor Service.

**SCHENECTADY STORAGE &
TRUCKING COMPANY****SCHENECTADY, N. Y.****W. CADY SMITH**

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DISTRIBUTING
STORAGEMerchandise
RESHIPPING
PER ORDER

For Wholesalers and Manufacturers.

Moving Safes, Boilers and Heavy Machinery a Specialty.
Household Goods Stored and Shipped. Motor Service.

SYRACUSE, N. Y.

CONSIGN your Syracuse shipments of merchandise or Household Goods to us. Railroad siding in connection with our warehouse.

Mail bills of lading direct to us. We make no charge for collections and remit promptly.

A big transfer job does not stagger us. We own and operate a fleet of auto trucks to facilitate modern and reliable service.

Yours for Co-operative Service

**SYRACUSE FURNITURE &
FORWARDING CO., Inc.**

270-272 James St., Syracuse, N. Y.

STORAGE PACKING SHIPPERS AGENTS

SYRACUSE, N. Y.**Flagg Storage Warehouse****TWO FIREPROOF WAREHOUSES**

STORAGE OF GENERAL MERCHANDISE
and HOUSEHOLD GOODS

We are in position to render quick and efficient service.

Centrally located to all jobbers and freight houses.

Correspondence Solicited.

100 Townsend St.,

Syracuse, N. Y.

SYRACUSE, N. Y.

Merchandise
Distribution
Given
Especial
Attention



Storage of Household Goods, Merchandise and Machinery
**IF YOU WANT REAL SERVICE—TELL ME
YOUR REQUIREMENTS**

**HOOKEYWAY'S
Storage Warehouse**

725 E. Water St.

TROY, N. Y.**EMPIRE STORAGE WAREHOUSES**

TROY, N. Y.

GENERAL STORAGE AND DISTRIBUTING

UTICA, N. Y.

UTICA CARTING & STORAGE COMPANY

Storage, Trucking, Forwarding,
Shipping, Rigging, Transferring,
Distributing, Checking, Packing

MOTOR VANS FOR LONG DISTANCE

Members New York and Illinois Associations.

UTICA, N. Y.

Consign Utica Shipments to JONES-CLARK TRUCKING AND STORAGE CO., Inc.

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SPECIAL ATTENTION given to Mer-
chandise Distribution and Pool Car Ship-
ments. Storage of Merchandise, Furniture,
New Autos and Machinery.

U. S. C. Bonded

Bill Via N. Y. C., D. L. & W., N. Y. O. & W.

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STORAGE

Fireproof and Non-Fireproof

Business Established in 1867 and built up by

A SERVICE THAT SATISFIES

Prompt Deliveries by Motor
Complete Transfer Facilities

Member
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New York Furniture
Warehousemen's
Association
and
Illinois Furniture
Warehousemen's
Association



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PAGELS**

937 West 8th St.

RALEIGH, NORTH CAROLINA

Carolina Storage & Distributing Co.

Raleigh North Carolina

We store, reship and distribute all classes of freight.
Modern brick warehouses located on railroad tracks.
Pool car distribution a specialty. Being centrally located,
reaching a population of over 1,500,000 within a radius
of 100 miles, and having excellent railway service, Raleigh
is most logical distributing point for this territory.

CANTON, OHIO

CUMMINS STORAGE COMPANY

STORAGE, DRAYING, PACKING AND
FREIGHT HANDLING A SPECIALTY

Unsurpassed Facilities for Handling Pool Cars

310 EAST NINTH STREET

MINOT, N. D.

Consign your shipments to The Minot Warehouse & Storage Factory Distributors

Household Goods and Merchandise Stored. Reinforced
concrete building with brick walls and hollow tile inner
walls.

PRIVATE TRackage MOTOR EQUIPMENT

CINCINNATI, OHIO

"STACEY FIRST"



SERVICE
FIREPROOF AND NON-FIRE-
PROOF WAREHOUSES

MODERN MOTOR
VAN EQUIPMENT

RELIABILITY

Established 1891 Investment \$250,000
Your interests carefully protected

STACEY STORAGE CO.

2333 Gilbert Avenue

CINCINNATI, OHIO

Do you want to carry a stock of merchandise in Cincinnati? If so, we can look after it for you. Our warehouse is located on the Pennsylvania Railroad. We can reship to Southern points, etc.

The Wallace Transfer & Forwarding Co.
222 & 224 East Front Street

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SERVICE IS THE THING.

For You and Your CLEVELAND Customers

**LET US SERVE THEM AS
THEY SHOULD BE SERVED**

Our Equipment—Fireproof and Non-Fireproof Storage. Motors and Horse-Drawn Vans.

Our Organization is complete and is more than ample for the largest and most difficult proposition.

We Conserve Your Interests

THE CENTRAL STORAGE WAREHOUSE CO.

1843 East 55th Street
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Lake Shore Moving & Storage Co.

664 East 105th Street

Adjacent to the East 105th Street Freight Station of the New York Central Railroad.
Warehouse facilities and economical distribution for the eastern section of Cleveland.

CLEVELAND, OHIO



7724 DETROIT AVENUE

CLEVELAND, OHIO

THE CLEVELAND STORAGE CO.

Established 1883

Offices: Guardian Building

Mercantile Storage Only

Pool Cars for Distribution
and Reshipment

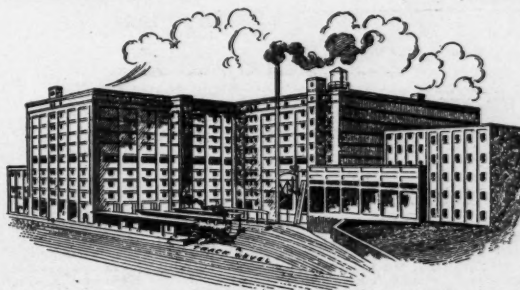
Convenient to Business and Shipping District

LOW INSURANCE RATES Sprinkler System

3 Warehouses, Private Siding,
C. C. C. & St. L. R. R.

Under Railroad Rules in effect October, 1918,
all roads absorb carload switching charges.

CLEVELAND, OHIO



3,000,000 cubic feet General Storage and Leasing Space.

1,250,000 cubic feet Cold Storage Space.

62 Car Capacity at one time.

New, Fire Proof Building

SERVICE

Is all we have to sell.

We solicit your business

Ninth Street Terminal Warehouse Co.

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Cleveland, Ohio

CLEVELAND, OHIO

The Lincoln Fireproof Storage Company

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Adjoining Penn. R. R. Euclid Avenue Freight Station and Team Tracks

CLEVELAND, OHIO

NEAL FIREPROOF STORAGE COMPANY

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Modern Fireproof Buildings Service Complete
Carload Consignments Solicited

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THE REDHEAD STORAGE Co.

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Fireproof Warehouse
Household Consignments Solicited
Satisfactory Service Assured

Members I. F. W. A. N. Y. F. W. A.

COLUMBUS, OHIO

THERE IS
NOTHING TOO LARGE
NOR TOO SMALL
FOR US TO HANDLE

THE BUCKEYE TRANSFER & STORAGE COMPANY

COLUMBUS, OHIO

Safety First

The Fireproof Warehouse & Storage Company

1018-30 North High Street
Columbus, Ohio

TRANSFERRING — STORING — PACKING

We have one of the finest warehouse plants in the state; being steam heated throughout, equipped with a sprinkler system, absolutely fireproof. The cheapest rate of insurance. Located handy to all railroads, we are able to deliver the best service obtainable anywhere. We solicit your shipments to our city and assure you we will reciprocate. P. A. DOLLE, General Manager.

Motor Truck Service

Vaults for Valuables

Private Rooms

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THE KUTSCHBACH-McNALLY Co.

Complete Facilities for Storing and Forwarding
HOUSEHOLD GOODS and MERCHANDISESiding on Pennsylvania Tracks
Manufacturers' Distributors MOTOR Equipment
Member Interstate Warehousemen's Association

COLUMBUS, O.

The Merchandise Storage Co.

Distributing & Warehousing Merchandise Only

Located on Big 4 Tracks

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Office and Warehouse, 33 Vine St.

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THE LINCOLN STORAGE Co.

"Fireproof"

BIG 4 TRACK IN BUILDING. Members N. Y. & I. F. W. A.

313-315 EAST FIRST STREET

A. B. Compton, Vice-President

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BAINBRIDGE, BACON & STATE STREETS

MERCHANDISE STORAGE TRANSFER DISTRIBUTION

MANSFIELD, OHIO

THE COTTER TRANSFER AND STORAGE CO.

FIREPROOF AND NON-FIREPROOF
WAREHOUSES

Furniture and Merchandise Storage

Motor Trucks Heavy Hauling Distributing

The Cotter System

Members New York, Illinois and American Warehousemen's Assns.

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The Island & Terminal Transfer Co.

JOHN A. MILLOTT, MGR.

TRANSFER, DRAYAGE and STORAGE

New Three-story Fireproof Building, also Non-fireproof Buildings

MERCHANDISE AND HOUSEHOLD GOODS
Complete Distributing Facilities Steamboat Landing and Railroad Siding

SPRINGFIELD, OHIO

Bill All Shipments for Springfield, Ohio, to

WAGNER FIREPROOF STORAGE & TRUCK CO.

Siding on Pennsylvania Lines

Complete Facilities for Distribution of Pool Car Shipments
Moving—Packing—Shipping—Storing
Household Goods and Merchandise

TOLEDO, OHIO

DEPENTHAL TRUCK & STORAGE COMPANY

108 SUMMIT STREET

Member of New York, Illinois, and Southern Furniture
Warehousemen's Associations

TOLEDO, OHIO

THE TOLEDO MERCHANTS' DELIVERY COMPANY

128 SUMMIT STREET

AUTO SERVICE—FIREPROOF STORAGE

Household Goods and Automobiles Moved, Packed, Shipped and Stored. Safes, Boilers, Machinery and Smokestacks Moved.

100% SERVICE

Reference: Second National Bank, or any bank in Toledo

YOUNGSTOWN, OHIO



Local and Long Distance Hauling
Manufacturers' Distributors Carload Distribution

TULSA, OKLA.

Tulsa Warehouse Company

Inc. \$200,000

Our business is your business in Tulsa.
We store your merchandise.
We look after your shipments.
We collect your drafts and accounts.
We distribute your samples.
We make you reliable credit reports.
We trace your cars and save you demurrage.
We furnish offices for rent to our patrons.
We loan you money on your warehouse receipts.
We give you real service promptly.
If there is anything else we can do for you, our services are at your command.

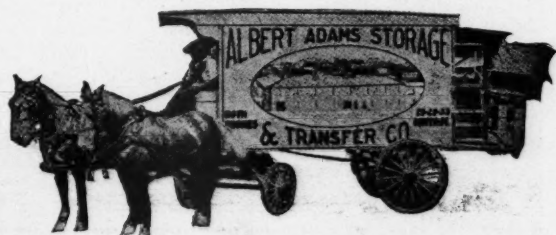
ORRA E. UPP, President and Manager.

ZANESVILLE, OHIO

ALBERT ADAMS
STORAGE AND TRANSFER CO.

25-29-33 Ninth St.

Merchandise and Household Goods
Manufacturers' Distributors Carload Distribution
50,000 Square Feet of Floor Space



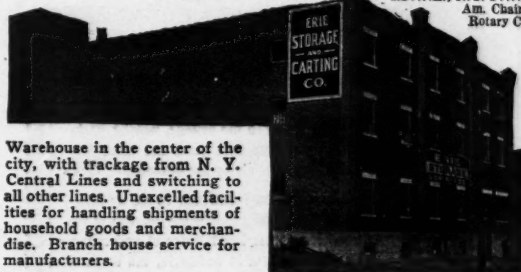
ERIE, PA.

ERIE

STORAGE & CARTING COMPANY

1502 Sassafras Street

Members of A. W. A.,
I. F. W. A., N. Y. F. W. A.,
Am. Chain &
Rotary Club

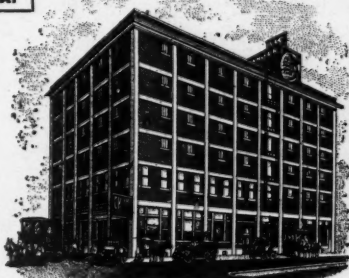


Warehouse in the center of the city, with trackage from N. Y. Central Lines and switching to all other lines. Unexcelled facilities for handling shipments of household goods and merchandise. Branch house service for manufacturers.

OKLAHOMA CITY, OKLA.

Fireproof
Warehouses for
Household
Goods and
Merchandise.

Members of I. F. W. A.,
New York, American
Chain, Central, South-
ern, Pacific Coast
Warehousemen's Asso-
ciation.



O.K. TRANSFER & STORAGE CO.

A. C. WEICKER, President

HARRISBURG, PA.

MONTGOMERY & CO.

STORAGE WAREHOUSES

Merchandise Storage—Transferring—Forwarding

Direct Track Facilities

Pool Car Distribution

Members A. W. A. and American Chain of Warehouses

HARRISBURG, PA.

Pool Cars

Received—Checked—Distributed
and

Forwarded in Less Than Car Lots

Penna. RR Harrisburg Storage Co.
Sidings Harrisburg, Pa.

CLINTON, OKLA.

100 miles from any other jobbing center

MANUFACTURERS

Should investigate Western Oklahoma territory.
No better point for distribution.
No better facilities than ours.

GOODNER-KRUMM-FARR CO.

All Kinds Transfer and Storage

If Your City Isn't
Represented Here

Put it on the shippers' map by
inserting your card in this space.

LANCASTER, PA.

KEYSTONE STORAGE COMPANY

STORAGE—DISTRIBUTORS—FORWARDERS

Merchandise and Household Goods

MANUFACTURERS' DISTRIBUTORS

MOTOR SERVICE

Siding on P. R. R. and P. & R.

OIL CITY, PA.

CARNAHAN TRANSFER & STORAGE COMPANY

R. C. LAY, Proprietor

Piano Moving a Specialty
Distributing and Forwarding Agents; Packing
Fireproof Warehouse

PHILADELPHIA, PA.

ATLAS

STORAGE WAREHOUSE

Office and Warehouse:
Market and Thirty-seventh
Streets,
Philadelphia, Pa.

Member Pennsylvania,
New York, Illinois,
and Southern Furniture
Warehousemen's Associations

Service is the measure of the difference between good work and poor.

Service of the right sort in the storage, moving, packing and shipping of household goods and office furnishings exclusively, constitutes our business.

As it relates to shipments consigned to us, we interpret service to require safeguarding the interests of the shipping warehouse, prompt remittance of collections, fair charges and treatment to customers, and to all—courtesy.

We solicit your Philadelphia shipments.

For West Philadelphia and general city delivery consign U. L. and L. C. L. shipments—P. R. R., 30th and Market Sta. Station; R. & O. R. R., 34th and Race Sta. Station; P. & R. Rwy., 23rd and Arch Sta. Station.

PHILADELPHIA, PA.

We Stand for a Square Deal

International Warehousing Co. General Storage

Delaware Ave., Queen and Swanson St.

Forwarding & Distributing

P. R. R. Siding

PHILADELPHIA, PA.

OUR HOBBY

is the distribution of goods for
National Merchandisers

North Philadelphia Storage Co., Inc.
SHIBE BALL PARK

PHILADELPHIA, PA.

Established 1883

Merchants' Parcel Delivery Co.

1132-34 Race St., Philadelphia, Pa.

Deliver in Philadelphia and Camden, N. J.

Special Prices on Samples, Advertising Matter, Calendars and Publications

PHILADELPHIA, PA.



Our large fleet of motor trucks enables us to render quick and efficient service to your patrons.

We are accessible to all depots and suburbs of our city. Our warehouses are within two blocks of North Philadelphia Station of the Pennsylvania Railroad and the 12th and York Streets Station of the Philadelphia & Reading or the Baltimore & Ohio.

Collections through our office will assure prompt returns.

Fireproof and Non-Fireproof Warehouses

Miller North Broad Storage Co.

2709-2721 North Broad Street

PHILADELPHIA, PA.

PENN STORAGE & VAN COMPANY

2136 MARKET STREET

"Let Wightman do it"

PHILADELPHIA, PA.

Established 1884

The SAFETY STORAGE VAN & PACKING CO.

3712-3714 Market Street

Motor Truck Moving - Storage - Domestic and Foreign Packing

PHILADELPHIA, PA.

Columbia Ave. Storage Company

1511 to 1519 Columbia Avenue

EXCLUSIVELY HOUSEHOLD GOODS

Motor Equipment
Moving Packing Shipping

Operated by the

TERMINAL WAREHOUSE AND TRANSFER CO.

Delaware Avenue and Green Street

GENERAL MERCHANDISE

Forwarding and Distributing

9 Warehouses. 16 Acres of Floor Space. Trackage Facilities for 17 Cars.

Members { American Warehousemen's Association
 { American Chain of Warehouses

PITTSBURGH, PA.



Fireproof
I will grow four
more stories



Garage & Stables

BLANCK'S Transfer & Storage Co.

Moving, Packing and Storage

MOTOR TRUCK SERVICE—SEPARATE ROOMS FOR STORAGE



Fireproof

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Penn

Ave.

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Fireproof

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HASLEY BROTHERS TRANSFER AND STORAGE

939 So. Canal St., N. S.

MOVERS, PACKERS, SHIPPERS OF HOUSEHOLD GOODS
FIRE PROTECTED STORAGE—MEMBERS A. W. A.

PHILADELPHIA, PA.



20th CENTURY

THE LAST WORD IN WAREHOUSES

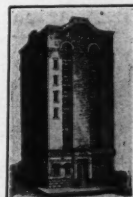
A solid concrete building. Best location in Philadelphia. A fleet of Pierce Arrow enclosed vans. We operate a large garage adjoining our warehouse capable of accommodating the largest van built. Try us when your van is in Philadelphia. All collections through our office promptly remitted. Members New York Warehousemen's Association and Pennsylvania Warehousemen's Association.

20th CENTURY STORAGE WAREHOUSE CO.

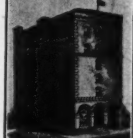
3120-22-24-26-28-30 MARKET STREET
(Opposite West Philadelphia Station P. R. R.)

PITTSBURGH, PA.

SERVICE TO THE CORRESPONDENT



CONSISTS in giving the correspondence of those we represent prompt acknowledgment, safeguarding their interests, mailing checks in settlement of accounts, and furnishing final reports of transactions.



THIS service also includes an element of importance:—the handling of shipments upon arrival in a manner conducive to joint customer's approval, whose future business we are always eager to secure.



Ship via Pennsylvania to East Liberty Station, (Pittsburgh, Pa.)

Established 1889

HAUGH & KEENAN STORAGE AND TRANSFER CO.

CENTRE AND EUCLID AVENUES

PITTSBURGH, PA.

HOEVELER WAREHOUSE COMPANY

MOVERS AND STORERS

750 MILLVALE AVENUE

PITTSBURGH, PA.

MURDOCH

STORAGE & TRANSFER COMPANY

General Office, and Warehouses

546 NEVILLE STREET
PITTSBURGH, PA.

Branch Warehouse, Wilkinsburg, Pa.

Murdoch Means Service

PITTSBURGH, PA.

Oakland Ex. & Transfer Co.

Packers, Storers and Shippers of

HOUSEHOLD GOODS

229 ATWOOD STREET

PITTSBURGH, PA.

J. O'NEIL EXPRESS & STORAGE

N. S. PITTSBURGH, PENNA.

Furniture and Piano Moving a Specialty. General Hauling.

NEW FIREPROOF STORAGE HOUSE
Separate Rooms

PITTSBURGH, PA.

SHIP YOUR CARS TO US FOR DISTRIBUTION

Pool Cars

Received, Checked, Distributed
Reshipped in Less Than Car Lots

Pittsburg Distributing Co.

708 Duquesne Way
Pittsburg, Pa.

PITTSBURGH, PA.

WEBER EXPRESS & STORAGE COMPANY

GENERAL HAULING

Moving, Packing and Storing of Furniture and Pianos

4620 HENRY STREET

PITTSBURGH, PA.

Building 100 x 125—8 Stories Front
9 Stories Rear—Garage in Basement—Just Completed

Shanahan Transfer & Storage Company

Fireproof Storage for Household Goods.

All Separate—1200 Fireproof Rooms.

Furniture Moved and Packed for Shipment.

Motor Vans, Trucks.

Special Heated Piano Floor

Fifth Ave. at McKee Place

(Next Door to You)

Established 1865.

Over 50 Years

SCRANTON, PA.

Local & Long Distance Hauling
Manufacturers' Distributors—
Carload Distributions
R. F. POST ESTATE.SCRANTON, PA.
WILKES-BARRE, PA.

Established 1894.

"He Profits Most Who Serves Best"

(Rotary)

The Quackenbush Warehouse Co.

Incorporated

Warehousing of every description. Storing, Packing
Carting, Shipping. R.R. Siding. Manufacturers
Distributors

Correspondence Solicited

Wilkes-Barre, Pa.

Scranton, Pa.

PROVIDENCE, R. I.

CADY MOVING & STORAGE CO.

STORAGE WAREHOUSES
Household Furniture and Pianos
Packing, Crating and Shipping.
62 to 70 Dudley Street.

NASHVILLE, TENN.

E. M. BOND
FIREPROOF STORAGE CO.
HOUSEHOLD GOODS AND MERCHANDISE
Modern Fireproof Building
Private Siding With All Rail Connections.

CHATTANOOGA, TENN.

**THE CHATTANOOGA
TRANSFER & STORAGE CO.**

Fireproof Warehouse

Furniture Merchandise
Packed Stored Shipped
Heavy Hauling

Motor and Horse Drawn Equipment

EL PASO, TEXAS

**WESTERN
TRANSFER & STORAGE COMPANY**

220-26 S. STANTON STREET
ONLY FIREPROOF STORAGE IN EL PASO
Forwarders and Distributors—Trucking of all kinds—Distribution
Cars a specialty—Warehouse on Track

BEAUMONT, TEXAS

**BEAUMONT BONDED
WAREHOUSE CO.**

WE DO POOL CAR DISTRIBUTING, MOVING, PACKING,
SHIPPING AND STORAGE.

Long distance hauling by Motor Trucks. 50,000 feet
storage space. R. R. track in building—no charges for
switching.

BEAUMONT, TEXAS

If the City to which you are shipping is not represented in this list, choose the nearest as the geographical arrangement will help you.

DALLAS, TEXAS

CARLOAD DISTRIBUTION & STORAGE**Merchandise and Household Goods****The Inter-State
Forwarding Co.**

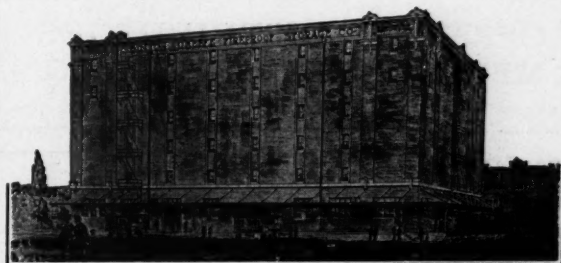
Cor. Elm & Jefferson St.
The Center of the Wholesale District

120,000 Sq. Ft.
on T. & P. R. R. Capacity Unloading 12
Cars Per Day.

Maintains an organization for service in all branches of
Warehousing and Distribution

W. I. FORD and R. E. EAGON
Associate Managers

FORT WORTH, TEXAS

**Binyon-O'Keefe
Fireproof Storage Company**

Est. 1875

Your consignments to Fort Worth
will receive intelligent service. We
have a siding on the Rock Island Rail-
road with free switching from all lines.
Fireproof warehouse, 90,000 sq. ft.,
yard storage, factory distributors.

Members of

Illinois Furniture Warehousemen's Association
Southern Furniture Warehousemen's Association
Central Warehousemen's Association

FORT WORTH, TEXAS

Fort Worth Warehouse & Storage Co.

INCORPORATED

Merchandise Distribution, General Storage
Manufacturers' Representative

PRIVATE SIDING WITH ALL RAIL
CONNECTIONS

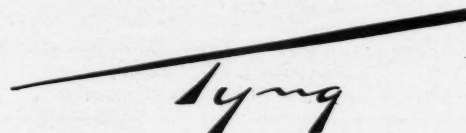
Fort Worth with its seventeen railways is the logical
distributing center for Texas and the Southwest.

Absolutely Fireproof Warehouses

SALT LAKE CITY, UTAH

SALT LAKE CITY IS A
NATURAL DISTRIBUTING CENTER

We Make a Specialty
of Carload Distribution



Warehouse and Storage Company

MERCHANDISE WAREHOUSING AND
DISTRIBUTION
COLD STORAGE

Served by all railroads

Salt Lake City, Utah

142,000 Square Feet of Floor Space

SAN ANTONIO, TEX.

Established 1880

FREIGHT

AUTO SERVICE

STORAGE

OFFICIAL DISTRIBUTORS
MERCHANTS' TRANSFER CO.

SAFETY

COURTESY

SERVICE

PETERSBURG, VA.

Southern Bonded Warehouse Corp.

BONDED STORAGE

Distributors

Motor Truck Service

Private Railroad Sidings

Our Negotiable Receipts Acceptable at all Banks

WACO, TEXAS

MASON
TRANSFER & STORAGE COMPANY
217-219 JACKSON STREET

Merchandise Storage, Forwarders & Distribution Truck-
ing of all kinds. Warehouse on track. 7 Denby Trucks

WACO, TEXAS

Weathered Transfer and Storage Co., Inc.
Modern Warehouse Facilities—Trackage on all roads
100,000 SQUARE FEET STORAGE SPACE

We do pool car distributing, moving, packing, shipping,
storage, long distance hauling by trucks.

If Your City Isn't
Represented Here

Put it on the shippers' map by
inserting your card in this space.

ABERDEEN, WASH.

A. A. STAR TRANSFER CO.

401-403 SOUTH F STREET

ABERDEEN

WASHINGTON

WE DO EVERYTHING IN THE
LINE OF MOVING

Our Hobby

Equipped to Handle

Distributors of

CRATING

SAFES

FREIGHT

PACKING

PIANOS

H.H. GOODS

STORAGE

MACHINERY

BAGGAGE

Consign Your Shipments to Us for Proper Attention

SEATTLE, WASH.

United Warehouse Company
SEATTLE, WASH.

Established 1895

GENERAL STORAGE AND DISTRIBUTING

SEATTLE, WASH.

Duggan Transfer Company

SEATTLE TACOMA
Pool Car Distributors
Fire Proof Warehouse

YAKIMA, WASH.

MILLER & LENINGTON

CONTRACTORS

DISTRIBUTING and FORWARDING AGENTS

TRANSFER-STORAGE-WAREHOUSING

Motor Trucks and Team Equipment for All and Every Kind of Hauling

SHIP IN OUR CARE and let us be "At your service with best of service"

Office: 10 East A Street Sidney Hotel Bldg.
'Phone 571

SPOKANE, WASH.

McAllister Warehouse Company

W. E. Burke, Manager

More than a Warehouse—we are your personal representatives, carrying out your policies. Carloads are received, stored and distributed in Spokane for local and Inland Empire customers. Office facilities for handling your trade are at your disposal.

We have grown with Spokane; let your account grow with us.

YAKIMA, WASH.

J. J. CRAWFORD, PRES.

E. NORTON, SEC

YAKIMA TRANSFER & STORAGE CO.

Office and general storage warehouse No. 25 North Front, directly opposite Northern Pacific passenger station.

22,000 square feet of compartment storage for household goods, pianos etc.

Track warehouse No. 11 South First Ave, 30,000 square feet of floor space devoted exclusively to the storage of merchandise. Every facility for clean, economical, storage and handling of commercial accounts.

Auto trucks and teams.

TACOMA, WASH.



WE OWN BOTH WAREHOUSES

Established 20 years in Tacoma—and know how to handle your requirements

Storage (bonded and free) Merchandise and H. H. Goods

Moving and Packing by Experts C. L. & L. C. L. Distribution

Collections Remitted Promptly We Solicit Your Business

TACOMA, WASH.

PACIFIC STORAGE and TRANSFER CO., Inc.

Merchandise and Furniture Storage

Distributors and Forwarders

Merchandise and Furniture

SEND YOUR POOL CARS IN OUR CARE

Auto Truck and Transfer Service

N. P. RY. SIDE TRACKS

BROADWAY AND 17th STREET



If Your City Isn't Represented Here

Put it on the shippers' map by inserting your card in this space.

A Well Informed Employee Is Your Greatest Asset

TO give the service that your customers expect and are entitled to receive, it is essential that every department head in your organization have an intimate knowledge of modern warehousing.

This knowledge can best be imparted to the various men in your organization by having them read DISTRIBUTION & WAREHOUSING each month.

On the subscription list of DISTRIBUTION & WAREHOUSING are many prominent terminal, warehouse, manufacturing and transportation companies who receive regularly several copies of each issue for their general executives, traffic managers and other department heads.

The subscription price is only \$2.00 per year (\$2.50 west of the Mississippi). Dictate the letter now, giving us the names and addresses of the men in your company who should be receiving this publication each month.

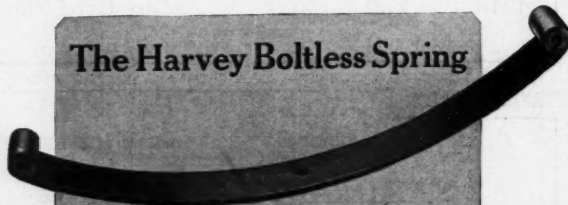
DISTRIBUTION & WAREHOUSING

239 W. 39th St.

New York, N. Y.

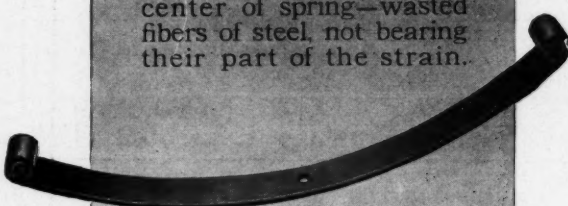
Unbroken Lines of Strength in the Harvey Boltless Spring

The Harvey Boltless Spring



An indentation forged hot to force a bead on opposite side of leaf is the means of holding leaves rigid in the clutch of the spring clip. Thus the "lines of strength" are unbroken. No hole anywhere. Fibre of steel is unbroken—no metal removed. This is the Harvey way.

The Common Spring



At the center, where the spring bears greatest strain, is the weakest spot caused by punching a hole to accommodate a bolt, the common method of spring fastening. The "lines of strength" are broken by the hole in center of spring—wasted fibers of steel, not bearing their part of the strain.

TWO methods were employed to make the Harvey Spring excel in strength so that a broad guarantee could be offered safely with every sale. The center hole was eliminated, so there are no weak spots. Then the Harvey patented process of heat treating and tempering was evolved. These two factors have made the Harvey known in motordom as a spring in which the owner can place utmost confidence.

The Harvey's resilience eliminates jolts that would otherwise wear

down tires and mechanism prematurely.

Storage and transfer men favor the Harvey Spring because it bears up through the emergency that breaks the ordinary spring. Thus the Harvey aids in maintaining uninterrupted service. Write for full information and the name of the nearest Harvey dealer.

Harvey Spring & Forging Co.
1122-17th Street Racine, Wis.



Harvey
RACINE
BOLTLESS
AUTOMOBILE
SPRINGS
Easy Riding—Guaranteed

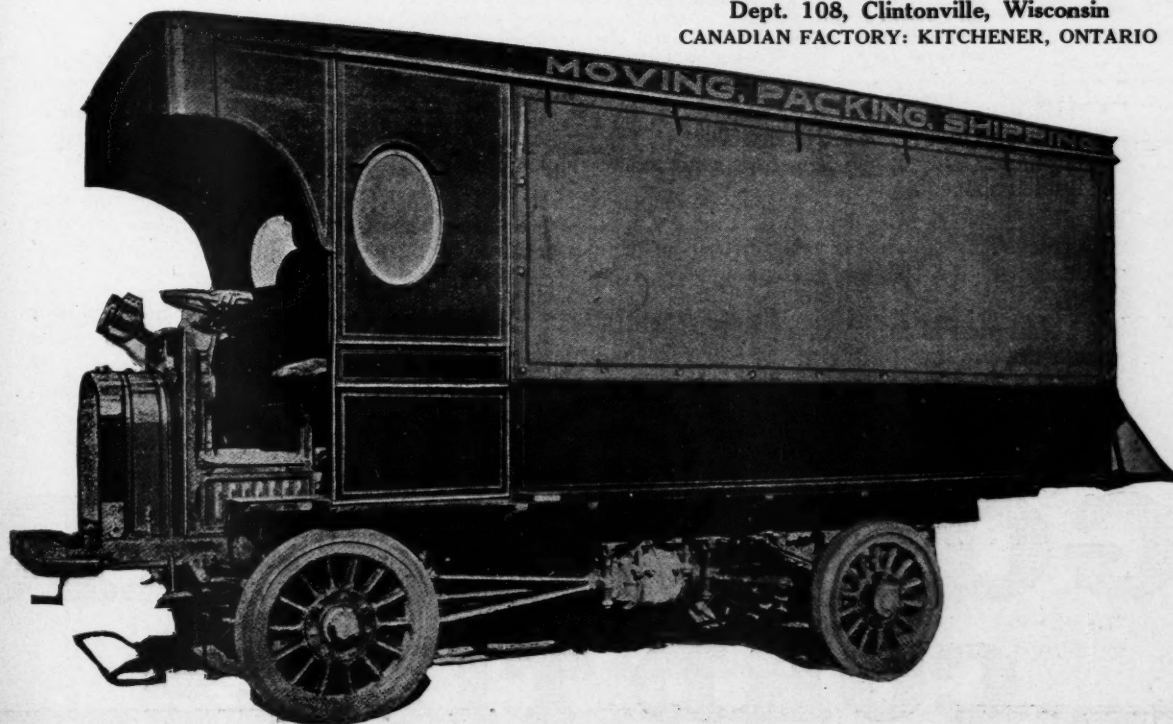
FWD TRUCKS

Even With the Big Storage Loads That F-W-D Trucks Carry—

they are far more easily handled in crowded streets and cramped loading and unloading places than rear drive trucks. The turning radius of the F-W-D is 25 feet 3 inches. It is the easiest steering of all trucks. Steers like a passenger car *with the front wheels only*.

F-W-D Trucks are ideal for the transfer and storage business. With the same or more loading capacity than rear drive trucks of the same rating, the F-W-D's compact construction saves 44 square feet of chassis area. With power and load equalized *on all four wheels*, the F-W-D is saved from undue strains at any one point. In rear drive trucks 75 to 95 per cent of the load is carried on the rear axle. The F-W-D has a 56-inch tread, standard on every road—front and rear wheels in perfect track—same size tires all around. It saves 21 per cent on tire equipment alone. Write for details.

The Four Wheel Drive Auto Co.
Dept. 108, Clintonville, Wisconsin
CANADIAN FACTORY: KITCHENER, ONTARIO





Copyright 1920, by The Goodyear Tire & Rubber Co.

Pneumatics Offer All-Around Advantages

"Pneumatics offer all-round advantages over solid tires in our hauling—save trucks, loads, and improve working spirit of drivers. They require 1½ less gallons of gasoline on a 90-mile run. Solid-tired trucks sway over the road but trucks on pneumatics run straight. Goodyear Cords are giving excellent service."—P. P. Triller, Purchasing Agent, The Wadley Company, Produce Wholesalers, Indianapolis, Indiana

THE advantages of hauling bulky and fragile loads on Goodyear Cord Truck Tires are becoming increasingly apparent to firms such as the one quoted above.

Users find that the old handicaps under which their trucks labored while on solid tires have been eliminated by the tractive, cushioning Goodyear Cords.

They find that the cushioning power of the pneumatics protects from ruinous jars and jolts both the truck and its load.

They find that the tractive power of the broad

All-Weather Tread is such that their trucks easily negotiate sandy stretches, snow and thawing ground.

And as a final clinching virtue, they find that their Goodyear Cords have a toughness that enables them to roll up mileages frequently exceeding solid-tire mileages.

Authentic information, describing how transfer and storage firms employ pneumatic-tired trucks and what savings result, can be obtained by writing to The Goodyear Tire & Rubber Company, at Akron, Ohio.

GOODYEAR

CORD TIRES



GMC Quality Built In

This GMC Truck, specially equipped with a closed body of unusual capacity, is yielding a profit in transportation for Wm. Fridrich, of Cleveland.

Day after day it is on the job without delays or inconvenience.

All over the country GMC Trucks are being selected by distributors and warehouse men.

The peculiar characteristics of GMC Trucks adapt them particularly to this kind of work.

Great power and flexibility in the motor give them the speed required for fast, snappy delivery.

Great chassis strength makes possible hauling the largest load with the least excess weight.

GMC Trucks are backed by the General Motors Corporation, one of the largest organizations in the automotive industry.

GMC service is available in every community.

Ability for hard work and economy of operation make GMC Trucks the ideal means of transportation for your line of business.

Let your next truck be a GMC.

GENERAL MOTORS TRUCK COMPANY

One of the Units of the General Motors Corporation

PONTIAC, MICHIGAN

(602)

Kelly-Springfield Caterpillar Tires

Nothing else like them.

They give greater traction and greater mileage than the ordinary smooth tread endless and are almost as resilient as a pneumatic.

Many of the biggest fleet-owners in the country are replacing their old tires with Caterpillar equipment.

Kelly-Springfield Tire Co.
New York, N. Y.

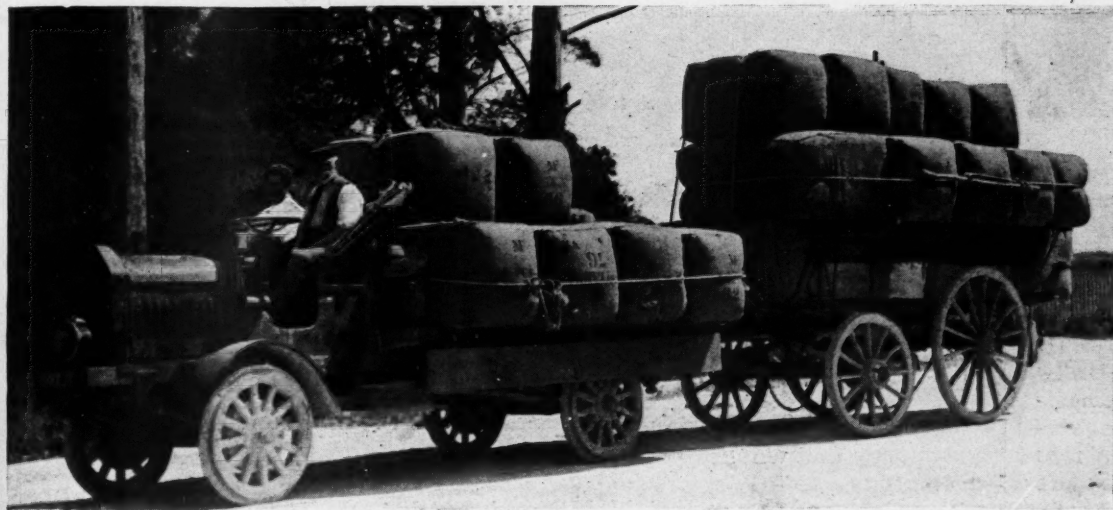


Protected by
United States
Patents

June 28, 1904
Aug. 31, 1915
Mar. 14, 1916
Feb. 19, 1918

DUPLEX TRUCKS

BUILT FOR BUSINESS



Lancaster, New York,
September 18, 1919.

Gentlemen:—

I am more than pleased with the performance of my Four-Wheel Drive Duplex.

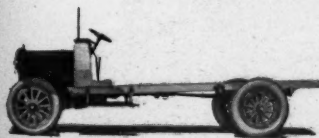
To substantiate the above I haul and deliver five tons of ice under all conditions of weather and roads, getting about seven miles per gallon out of gasoline. In addition to this, I do considerable hauling throughout western New York and northwestern Pennsylvania over roads almost impossible for other vehicles.

I am considering the purchase of another truck for hauling sand and gravel and, basing my judgment on the past records of my present Duplex, I believe this new truck will be a Four-Wheel Drive Duplex, as I have never found another truck that could haul these big loads over the same conditions.

Very truly yours
Frank J. Ball

Duplex Limited

Medium Capacity—Two
Wheel Drive—High Speed
\$2575 F. O. B. Lansing



DUPLEX
BUILT
FOR BUSINESS

DUPLEX 4-Wheel Drive Trucks are typical examples of American progress. They occupy a prominent place in every line of the warehouse business and their prestige is permanently fixed in the minds of business men.

Yet it is little wonder that increasing numbers are learning about Duplex performance and applying it to their own business. Merit soon establishes a standard and the buying public are quick to sense a leader.

Duplex truck success is due to a number of things but mainly to their performance—their dependability. Profitable truck operation can come only from constant service.

Get all the facts about Duplex Trucks. You will find them interesting and perhaps profitable.

Duplex 4-Wheel Drive

3½ Ton Capacity. Price \$4250, f. o. b. Lansing

Duplex Truck Company
Lansing • Michigan

One of the Oldest and Most Successful Truck Companies in America



The Business of Haulage

The magazine "TRUCK TRANSPORTATION" will be mailed on request to Department TS, Selden Truck Corporation, Rochester, N. Y.

The truckman is a big link in all industry—what business is not dependent to a certain degree on transportation?

The motor truck is a vital part of the great transportation scheme of industry—an essential part of the truckman's business.

Intercity haulage has advanced to the point where a man with ability will build up a big business and a profitable one.

But to do so the right motor truck must be used, a truck so constructed as to reduce maintenance cost and depreciation to a minimum, one that will keep constantly at work.

Did you read G. H. Morrow's article in the January issue of Distribution and Warehousing?—Morrow knows the business—and he operates nineteen Seldens. They have made money for him, and will for you.

SELDEN TRUCK CORPORATION ROCHESTER, N. Y., U. S. A.

Ship by Truck—SELDEN Truck





Basic Strength

Paige Motor Trucks have the basic strength to perform the unusual task as well as the usual. No work can impose a burden too heavy for Paige strength, a task too brutal for Paige endurance-qualities.

Into every Paige truck is built the stamina to keep it on the job uninterruptedly, day after day and year after year. By its faithful performance and sturdy dependability, it is continually justifying its right to be called "The Most Serviceable Truck in America."

Paige reputation grows with each successive truck that bears the Paige nameplate. The reliable character of Paige service has won for it the spoken approval of Paige owners everywhere.

Ever since the Paige nameplate first appeared ten years ago, it has been relied upon as the symbol of an institution rather than as the mark of a product. We take pride in the fact that this faith reposed in us as an institution has never been violated.

PAIGE-DETROIT MOTOR CAR COMPANY, DETROIT, Michigan

Manufacturers of Paige Motor Cars and Trucks

PAIGE

The Most Serviceable Truck in America

MOTOR TRUCKS

Save Money and Labor by Handling L.C.L. Freight with Storage Battery Trucks and Tractors

A brief and pithy comment on the labor situation is expressed in the following quotation from a recent issue of Freight Handling and Terminal Engineering:

"The latest quotation gives railroad freight handlers \$7.00 per day wages, and the cost of handling l.c.l. freight \$1.37 per ton.

"And the limit not yet reached."

This quotation gives reasons enough why the storage battery truck or tractor should be used.

Consider that one storage battery truck or tractor will do the work of 10 to 15 hand truckers.

Remember that something must be done—in the face of the present labor shortage and high wages.

Can YOU hesitate in applying these strong, speedy electric trucks and tractors to your freight handling problems?

Edison Storage Batteries are the Standard for this service because they are the only storage batteries built of **Steel and Iron**.

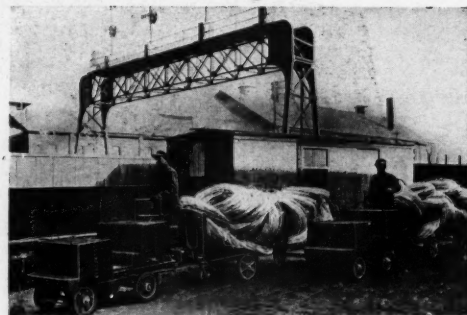
Our Bulletin 600-B will tell you more about Edison Batteries in Trucks and Tractors. A copy on request.

EDISON STORAGE BATTERY CO.

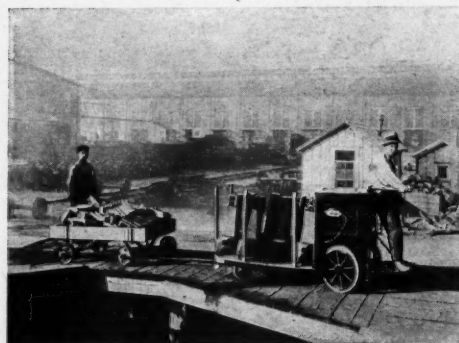
Factory and Main Office: Orange, N. J.

Distributors in

New York, Boston, Chicago, Cleveland, Detroit, Seattle, San Francisco, Los Angeles, Denver, Kansas City, New Orleans, Atlanta, Washington, Philadelphia, Pittsburgh, Scranton, Syracuse, New Haven.



This company operates thirteen trucks and two tractors, all equipped with Edison batteries.



An example of industrial truck service. This storage battery truck is operated singly or with trailer in handling rough stock over the yard to the assembly and machine shop. The truck is loaded with couplings; the trailer is loaded with bearing boxes. Making the grade is part of the trip.



Transporting large numbers of heavy pieces is done quickly and efficiently by storage battery trucks and tractors.



Think of the hand power this one tractor saves. This one tractor travels 2 or 3 times as fast as a hand trucker, and can work day and night if required. Here is a solution for congestion of freight and baggage.



TRADE MARK
REGISTERED

Profits are Payment for a Service

An Important Service Rightfully Brings Big Profits

The distributor of Motor Truck Bodies and Hoists today is performing an important service. States and counties all over the nation have thousands of War Trucks on hand--all without dump body equipment--all urgently needed for road construction *now*.

The distributor who helps get these trucks into action by supplying "K. & J." Standardized Motor Truck Bodies and "K. & J." Hand and Power Operated Hoists is performing a big service. A service that is *profitable*.

If you are equipped to act as a distributor of "K. & J." Dumping Equipment--if you have the plant facilities, the trade acquaintance and the financial resources to perform this service as this big occasion demands, don't overlook this opportunity.

It is an opportunity for immediate profit--a profit which is well earned, but large enough to establish you as a distributor of "K. & J." Dumping Equipment for normal commercial business after the present big emergency is over, and leave a nice margin besides.

The distributor of "K. & J." Dumping Equipment for the normal commercial trade offers a big future for the right organization. A huge commercial demand is now in sight for 1920, and 1920 sees the commercial dump truck business still in its infancy.

The Kilbourne & Jacobs Mfg. Co.
Columbus, Ohio, U. S. A.

TRADE MARK
REGISTERED





The mounting of "K. & J." Standardized Bodies is a very simple process requiring very simple equipment

"K & J" Standardized Dumping Equipment is an Ideal Proposition for the Distributer

It is designed, standardized and built by a large organization capable of far-reaching co-operation with you. The mechanical features of the "K & J" proposition are excellent.



United States Truck-Type "Quad" (In Partial Dumping Position)

Equipped with "K. & J." Hand Hoist and "K. & J." Standardized Dumping Bodies.

*Mounting a "K & J" Standardized Body is a simple, quick operation
---not a factory process.*

The "K. & J." Adjustable Underframe is supplied attached to all "K. & J." Standardized Bodies. This includes all wood sills and fasteners--everything above the chassis frame and back of the hoist.

A simple, hand adjustment fits this underframe to any width chassis. A similar forward and back adjustment provides for clearances.

"K. & J." Vice-Grip Bolt Clamps are used for attachment to chassis frame on all smaller capacity bodies and can be supplied for all types.

A complete variety of body sizes and types are provided for hauling different classes of loads such as coal, asphalt, garbage, etc.

The Kilbourne and Jacobs Mfg. Company

NEW YORK
120 Broadway

Columbus, Ohio, U. S. A.

ADDRESS
Dept. 013 O

**The Distributer can Stock these Bodies and either Equip New Trucks
or Mount New Bodies on Old Trucks at a Minimum
of Labor Cost and a Maximum of Profit**

If your idea of the bulk of such a stock is based upon your idea of the ordinary motor truck body--cut it practically in half. "K. & J." Standardized Bodies nest one within the other.

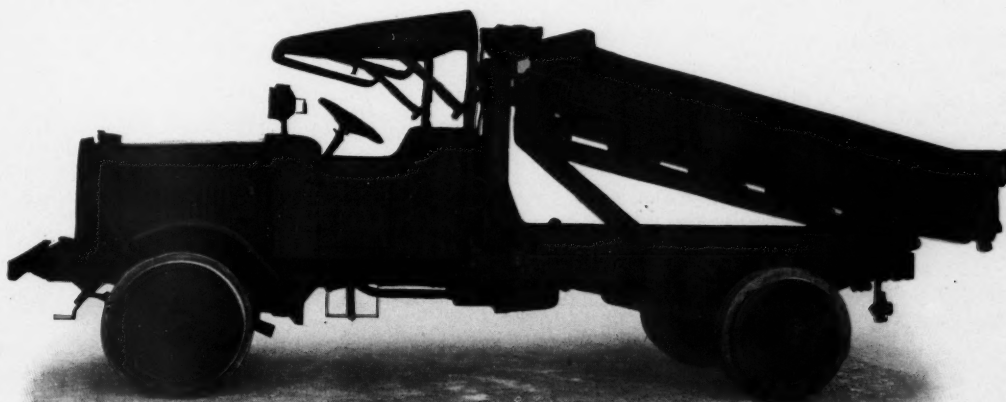
Read the distinguishing advantages of "K. & J." Standardized Bodies on page 4 of this insert.

You will require hoists to complete your line. We supply the "K. & J." Hand Hoist and the "K. & J." Light Automatic Power Hoist for bodies carrying loads up to two tons, and the "K. & J." Giant Lift Automatic Power Hoist for the heavier mountings.

"K. & J." Hand Hoists are simple, rugged and easily operated, and are in big demand for the lighter state and county mountings today. Their satisfactory service is being demonstrated to thousands of contractors through this channel alone.

"K. & J." Power Hoists are sure, safe, lifting units. They do not depend upon a pump nor upon any liquid. Temperatures do not effect their operation--they are all-climate equipment. They have no extending members--no piston movement but are low, rugged and powerful.

In the knowledge that the mightiest lifts have always been made by mechanical means and through immediate mechanical contacts "K. & J." Hoists were developed. And it is a significant fact that among the largest, oldest and most successful motor truck manufacturers there are those using the mechanical hoisting principle exclusively.



United States Truck-Type "Heavy Aviation" (In Partial Dumping Position)

Equipped with "K & J" Automatic Power Hoist and
"K & J" Standardized Steel Dumping Body

The Kilbourne and Jacobs Mfg. Company

NEW YORK
120 Broadway

Columbus, Ohio, U. S. A.

ADDRESS
Dept. 013 O

TRADE MARK
REGISTERED



The Advantages of "K. & J." Dumping Equipment Are Important--Study Them

1. Power Hoist is driven from "sliding jaw" clutch on propeller shaft through a chain. Rugged, simple, positive, controlled by lever easily reached from driver's seat.
2. Malleable bracket on hoist base provides means of quickly riveting hoist to chassis frame.
3. Hoisting arms shipped attached through rugged brackets riveted to lower front corners of body and to front I-Beam cross-member. Arms fold flat under body. In dumping they travel rails leading up hoist columns. No stiff arms projecting below top of chassis frame to cause trouble in dumping on uneven ground.
4. Power hoisting mechanism automatically disengages at total lift and total descent. Can disengage manually at any desired angle up to 45° worm lock holding body without brakes or clutches. Can be re-engaged for travel either up or down. Driver may start with body at full dump. Hoist will lower body and disengage with truck in motion. Entire mechanism housed in bath of oil. No pumps, cylinders or pistons. Hence small upkeep cost.
5. Overall hoist height always low--no rising members. Cable winds on grooved drums applying lift at lower front body corners, first directly then through hoisting arms practically eliminating back pull on hoist.
6. Partial dumping tail-gate control, manually operated from drivers seat allows "spreading" load with truck moving. Quadrant at handle is ratcheted. Control lever engages any notch to regulate tail-gate opening.
7. Body splendidly fabricated. Lower inside corners rounded--no clogging and consequent rust. All inside rivets countersunk. Sides flared for extra strength and front crowned avoiding spill upon hoist or chassis. High hinged tail-gate for ample dumping clearance.
8. Rigid and adjustable underframe permits quick fitting to any width chassis frame without shop process.
9. Deep oak "cushion" sill strengthens frame and provides buffer against body--also takes away certain vibration strains from motor, transmission and axle.
10. Stout hinges provide rigid attachment of dumping unit to truck frame at rear and tend to prevent side-sway in dumping.

An extraordinary opportunity to take up a new, quick turnover, highly profitable line if offered you--one that is closely allied to your present business. One that has the backing of a big organization and big facilities ensuring you of thorough co-operation in selling as well as production.

Write us for the details that will convince you that if you have the organization to handle it you should apply for the line **now**.



"K. & J. Dumping Equipment is being widely advertised to the consumer. The advertisements reproduced here are "inserts" in color being run in many widely read engineering and contracting publications.

NEW YORK
120 Broadway

The Kilbourne and Jacobs Mfg. Company
Columbus, Ohio, U.S.A.

ADDRESS
Dept. 013 O



KISSEL TRUCKS



For efficient, economical and dependable haulage and delivery in the Transfer and Storage business!

QUICK shipping service calls for fast loading and unloading of maximum loads—scientific routing, short stops and long hauls.

The dominating thought in every step of Kissel truck construction, from the selection of materials to the finished chassis, has been to ***“build it to endure and survive the grill of exceptional demands and conditions.”***

For fourteen years Kissel Trucks have maintained this reputation among leading truck users in all lines of business.

Shipping schedules to meet ***in time***—promised deliveries to make ***on time***—twelve, fourteen, sixteen, even eighteen hours a day, ***call for trucks of honest build.***

Kissel truck design and construction reach their highest point of efficiency in the present models:—

All fixed or moving units are perfectly balanced—power balances weight and both harmonize in gear ratio; while axles and bearings do their part without adding needless weight.

If you would choose your motor truck equipment by its reputation for efficiency, economy and dependability—see your nearest Kissel distributor today.

Kissel Motor Car Co., Hartford, Wisconsin

The Economical Handling of Merchandise

is one of the greatest of industrial problems. The production of goods has been developed to the fullest—the sale of goods has been receiving the attention of business leaders for the past decade—and now comes for scientific considerations

The Distribution of Goods

Many a big concern loses a large percentage of its profits by not being familiar with existing facilities for the transfer and storage of its shipments.

The Transfer and Storage Directory (Third Edition)

should be in the possession of every traffic manager and shipper as well as on the desks of the officials of every storehouse and transfer company.

\$3.00 a Copy. Postage Prepaid

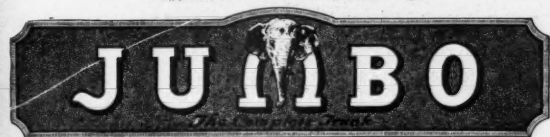
Contains data on how to compute warehouse rates according to the overhead expense; investment and income desired. How to base rates for handling commodities in and out of the warehouse.

Full particulars of warehouses and transfer companies throughout the United States and Canada, with names of officers, investment, capacity, facilities, railroad connections, etc.

Full Bound in Substantial Cloth. 386 Pages. (5 x 8 in.)

Distribution & Warehousing

239 West 39th Street, New York



The Complete Truck

WHEN you buy a Jumbo, you get a *complete* truck. There are no extras to buy except the body most suitable to your particular business.

Jumbo trucks are built stronger than other trucks to give you more years of steady, dependable service at lowest possible upkeep cost. All equipment that makes for efficient operation is *standard* on Jumbo trucks.

This generous provision in the matter of equipment, listed on this page, is typical of Jumbo construction throughout. Jumbo trucks *must* give you unusual service—that's the idea around which our business is built.

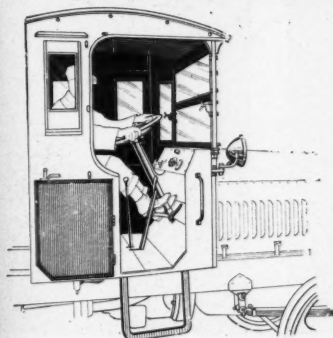
Standard Jumbo Equipment

Includes steel cab with fore doors, windshield, sliding sash curtains opening with doors, electric lights, storage battery, generator, ammeter, radiator shutters, moto-meter, fan shroud, radiator guard, extended frame forming bumper, hub-odometer, pig-tail tow hooks, spring drawbar, and 14 other big features.

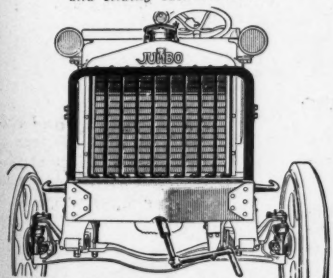
Space won't permit description of design features that positively assure longer life and lower upkeep cost than any other truck built today.

There's a Jumbo for your job. A request brings full information

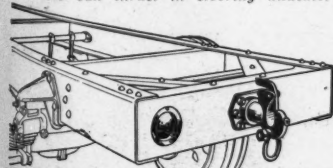
NELSON MOTOR TRUCK COMPANY
SAGINAW, MICH.



Steel cab with three-man seat, fore doors and sliding sash curtains.



Radiator guard, shutters, pig-tail towing hooks over-size ball thrust in steering knuckle.

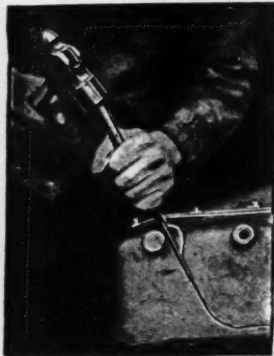


Reinforced frame, tail light mounted flush with frame, spring draw bar for trailers.

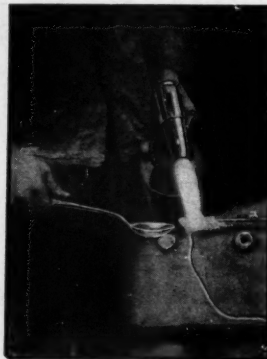
PETERS' METALLIC FILLER

(Nicro Spelter)

for cracked castings of iron, steel, brass or bronze



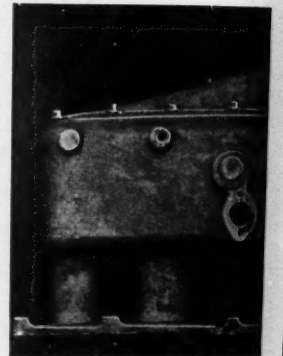
You first clean the crack thoroughly and bevel the edges.



Then heat for a moment with an ordinary hand torch (300 degrees ample) and apply the filler.



While the hot metal filler is still soft, pack and roll it smooth.



Allow to cool for five minutes, dress off with a file, and the job is done.

!!WORKS AT 300° F.!!

Forms a Permanent, Wear Resisting Braze

THE GREAT VALUE of Peters' Metallic Filler lies in the ease with which brazing can be accomplished—broken cylinders can be mended without dismantling or removing the engine and with full assurance that there will be no danger of warping the bore or changing the alignment.

The discovery of Peters' Metallic Filler replaces the old method of brazing whereby the casting must be heated to a cherry red with all the consequent dangers of cracking, distorting and warping.

Likewise it renders obsolete the old process of welding which required slow preheating and subsequent annealing.

Peters' Metallic Filler is a Metal. It is not a cement or a paste. It makes a permanent repair.

Peters' Metallic Filler is quick, efficient and inexpensive. It is the modern method of brazing and has won highest recognition and praise wherever used.

Large size repairmen's package, \$5.50.

If your dealer does not have it, order direct.

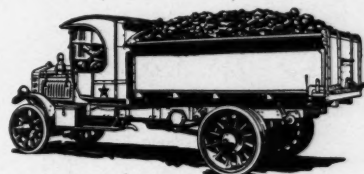
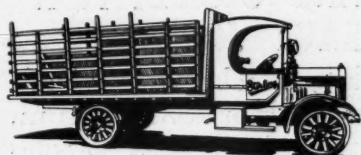
ALUMINUM BRAZING
SOLDER CO.

Widener Bldg.,

Philadelphia, Pa.

An interesting and valuable booklet "Information for the Expert Mechanic" will be sent free upon request





NO matter what your business may be, if you have real hauling to do, there's a Sterling of the right capacity, speed and body equipment to handle it efficiently and economically.

**"Efficiency
on
Wheels"**

Sterling

**MOTOR
TRUCKS**

are built in 1½, 2½, 3½ and 5-ton capacities, Worm-Driven, and in 5 and 7½-ton capacities, Chain-Driven.

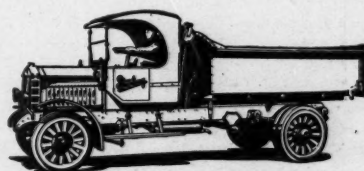
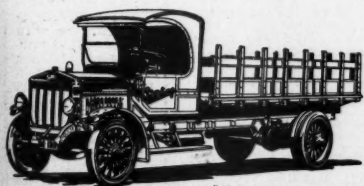
The 1½ and 2½-ton Sterlings, when equipped with Pneumatic Tires, will carry loads anywhere that a passenger car may be driven.

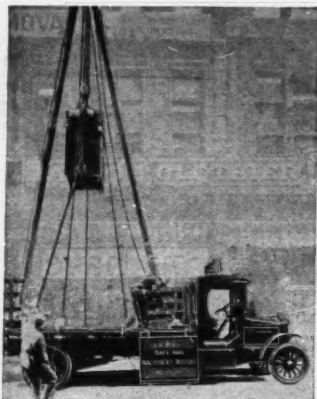
The 5-ton Chain-Driven Sterling—"The Road-BUILDER"—and the 7½-ton Chain-Driven Super-Sterling—"The Inter-City Freighter"—meet in an exceptional way the requirements of those who demand dependable service under extremely trying conditions.

Better Trucks than the Sterlings are not built anywhere.

Sterling Motor Truck Company, Milwaukee

Builders of Motor Trucks exclusively for twelve years.





HOW ARE YOU BEATING COMPETITION ON SPECIAL HEAVY JOBS?

Equipping your heavy duty trucks with Mead-Morrison Truck Winches (either Horizontal, Drum, or Vertical Capstan type) will enable you to send out two men on a job that now takes double that number or more.

Think of the jobs you might get if you could figure on this basis regularly.

Mead-Morrison Truck Winches are making money for many truckmen by increasing their profit-producing business.

Many truckmen have told us of the particular advantages of Mead-Morrison Truck Winches for handling unusual jobs—how they made money under difficult conditions because their trucks were Mead-Morrison equipped.

Write in for their story and for the name of our nearest Distributor.



MEAD-MORRISON MFG. CO.

227 Prescott Street

East Boston, Mass.



Trailmobile.

Trade-Mark Reg. U. S. Patent Office

More Efficient Hauling Between Warehouses

A LARGE reduction in expense and a large increase in convenience follow directly on the adoption of Trailmobile hauling to and from warehouses. Where hauls are long the advantages are especially marked.

The Charles W. Bauermeister Company, of Terre Haute, Ind., use a two-ton Trailmobile drawn by a one-ton truck to haul merchandise from one warehouse to another. The feature the Bauermeister Company especially likes is that the Trailmobile can be left to be loaded or unloaded at car or warehouse and then moved when that is convenient.

"We feel that the Trailmobile gives us all the benefit of a truck practically without up-keep or operating expense", say the owners.

For hauling in cities we especially recommend the Semi-Trailmobile used with short wheel-base truck. It has many exclusive features including a fifth-wheel coupling mechanism that makes coupling up and uncoupling automatic.

Write now for literature.

The Trailmobile Company
515-535 East Fifth Street
Cincinnati, Ohio



Good roads are preserved by reducing the load carried on each wheel

The Motorless
Motor Truck

**Thousands
in Use**

DIVISION 1

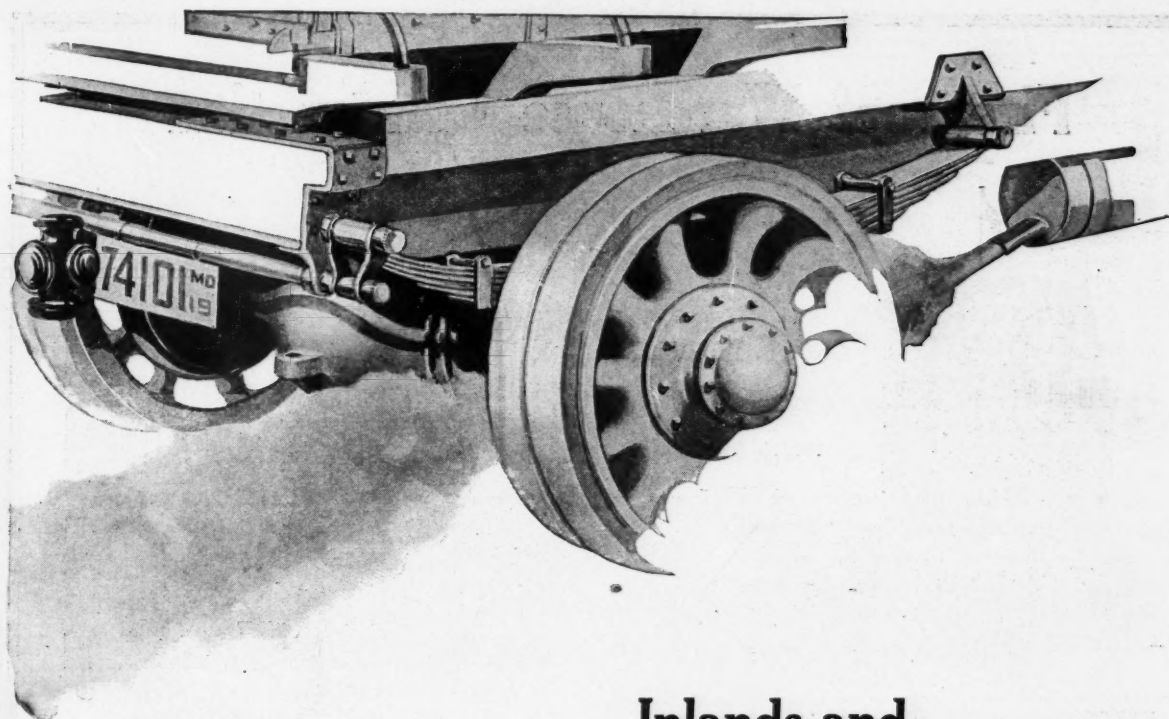
Light, one-way four-wheeled Trailmobiles for use with passenger cars or light trucks: 1,250 lbs.; $\frac{3}{4}$ -ton, and 1 ton.

DIVISION 2

Heavy-duty four-wheeled Trailmobiles for use with trucks: $1\frac{1}{2}$ -tons, one-way; 2 tons; $3\frac{1}{2}$ -tons, and 5 tons reversible and one-way.

DIVISION 3

Semi-Trailmobiles: $2\frac{1}{2}$ tons; 4 tons; 6 tons, and 10 tons.



Inlands and the smoke test

A truck equipped with Inland Piston Rings seldom leaves behind it a trail of grayish-blue smoke.

Smoke of this color indicates that oil is getting into the firing chamber and is interfering with combustion.

In order to be proof against leakage of oil, piston rings must fit the cylinder with absolute tightness.

But the ring too must be solid, without gaps at the ends.

The Inland Piston Ring with the spiral cut safeguards against leakage.

Because it is made in one piece and cut spirally, it is gas-tight and oil-tight.

And its tension makes possible a snug fit against the walls of the cylinder.

Whenever your truck puffs out grayish-blue smoke, look to your piston rings.

Samples on request to dealers, importers, wholesalers and manufacturers.

Inland Machine Works

1672 Locust St.

St. Louis, Mo.



INLAND

ONE-PIECE PISTON RING

Fireproof Warehouse Construction



GEO. S. KINGSLEY

Architect

109 N. Dearborn St.

Chicago

FIREPROOF WAREHOUSE NOW BEING
CONSTRUCTED AT 6331-33 BROADWAY,
CHICAGO, FOR THE HEBARD EXPRESS &
VAN CO. FRANK H. HEBARD, PRES., GEO.
S. KINGSLEY, ARCHITECT.



FIREPROOF WAREHOUSE ERECTED IN
1911 ON THE S. E. CORNER OF SHERIDAN
ROAD AND SHEFFIELD AVE., CHICAGO,
FOR THE HEBARD EXPRESS & VAN CO.
FRANK H. HEBARD, PRES., GEO. S. KINGS-
LEY, ARCHITECT.

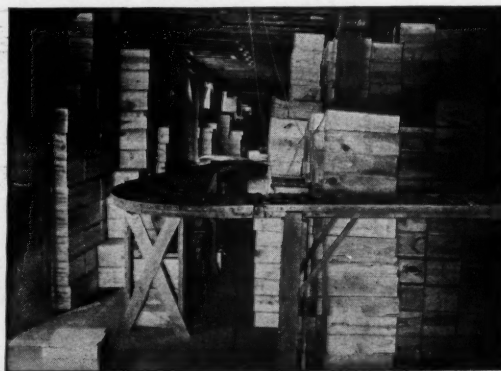
Here is Efficiency

THE constant wear and tear on floors can be saved. The Mathews Gravity Conveyor will do it.

Miles of steps can be saved. Expensive truck and elevator equipment can be eliminated. The time of your employees can be conserved; they will be able to turn out more work. The Mathews is doing all these things for many storage houses throughout the country. And it saves valuable floor space.

The Mathews Gravity Conveyor carries merchandise of all kinds quickly and safely with no expense for power. We have some interesting information for your consideration.

Write now.



MATHEWS
SPEED ECONOMY
GRAVITY ROLLER CONVEYER

MATHEWS GRAVITY CARRIER COMPANY 134 Tenth St., ELLWOOD CITY, PA.
Branch Factories: Port Hope, Ontario London, England

This indicator is set to locate the correct printing position

Job Time Records

The only way to obtain economical accuracy, is to make its attainment simple, easy, quick and sure. That is what has been done in this International Job Time Recorder for recording Job Time.

Any form of job card can be used with this International Job Time Recorder, and the printing is so spaced as to make it particularly adaptable to the use of the Hollerith Tabulating Card.

The Card is inserted in this card receiver

EMPLOYEE NO. 1450		Name Frank Morgan		Date 11-21-19		Dept. 14	
ORDER NO. 16980		Employee No. 0000		Order No. 0000		Part No. 0000	
PART NO. 1786		OPERATION 12		Oper. 00		Pieces Good 00	
FINISHED NOV 21 4.7		PIECES GOOD 54		Hours 00		Earnings 00	
STARTED NOV 21 1.2		HOURS 3.5		RATE .55		AMOUNT \$1.93	
SIGNED J.B.M.		NO. 42		NAME Charles Williams		DEPT. NO. 3	
TIME RECORD		ELAPSED TIME		ORDER NO.		DESCRIPTION OF WORK	
8	1919 NOV 21 5.0	1.5	Finish	2681	Gear cutting		
7	1919 NOV 21 3.5	3.4	Start	2371	Grinding		
6	1919 NOV 21 3.5		Finish		Milling		
5	1919 NOV 21 11.1	1.9	Start	3168	gear cutting		
4	1919 NOV 21 11.1		Finish				
3	1919 NOV 21 9.2	1.7	Start	3351			
2	1919 NOV 21 9.2		Finish				
1	1919 NOV 21 7.5		Start				
TOTAL E. T. 8.5		RATE .60		COST \$5.10		APPROVED J.B.	

Write us for details on the special advantages of the International Job Time Recorder. You will have our prompt and practical co-operation.

INTERNATIONAL TIME RECORDING COMPANY of New York

Works: Endicott, N. Y., Toronto, Ontario, Canada

Offices and Service Stations in all principal cities of the world

General Offices:
50 Broad Street
New York

Canadian Office:
International Business Machines Co., Ltd.
300 Campbell Avenue, Toronto, Canada

London Office:
57 City Road, Finsbury
London, E. C., England

Paris Office:
77 Avenue de la Republique
Paris, France

Low Priced Sheds Will Better Your Service and Build More Business



Showing Interior of Unit Storage Building



Oil Storage Building



Merchandise Storage or Overflow Building

Increasing demand for temporary ground storage makes less expensive building essential.

Prudential Steel Buildings are the sturdiest fireproof movable buildings it is possible to manufacture at low cost.

No one can afford to use all his working capital for costly buildings.

Short time storage prohibits use of high priced space. No man can afford to pay big bills for cotton storage or machinery space, when all he wants is to prevent weathering. No

heat; no stacking; no sales service needed.

Prudential Buildings are adapted to implement and machinery storage, to heavy merchandise for ground storage, to short time in and out storage of cotton, grain, canned or sacked products. They are movable at will.

They are made on the unit plan. Assembly is a matter of a few hours—days at most.

Let us figure on your problem. We can show you where we can serve. Write us today.

Ask for Catalogue Section No. 40

The C. D. Pruden Company

"Station C," Baltimore, Md.

165 Broadway, New York City



This Bradley Stencil Machine and One Boy Will Do the Work of Three Markers

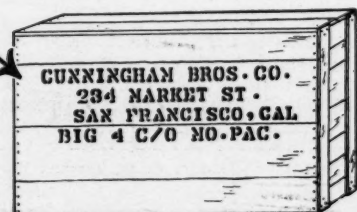
And do it with black, clean cut accuracy that is straight insurance that your shipments *will go through*. No sidetracking or delay due to careless illegible marking. Follow the arrow and you will see the actual work—just as you can have it done in your place.

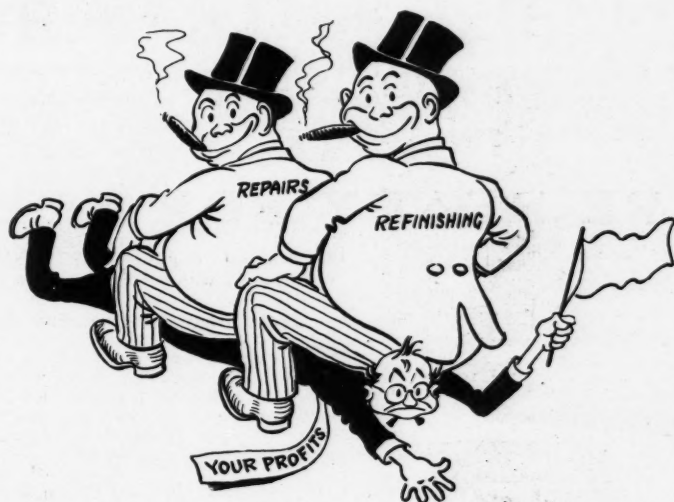
This is a startling economizer of Time, Money and Labor. You prove it on the following proposition:

Write us today and we will send you a "Bradley" ready for use—300 stencil cards, Patent Ball Marking Brush, etc. PREPAID. USE IT FOR A MONTH AT OUR EXPENSE. Then, if it doesn't cut cardboard stencils *faster* than any other machine or any expert can do them—SEND IT BACK. (No quibbling or correspondence on our part)—and we will pay Return Freight.

This is the biggest promise and the fairest proposition you have ever had. Order The Bradley Stencil Machine—NOW. You are losing Big money every day you wait.

BRADLEY STENCIL MACHINE CO.
3744 Forest Park Boulevard St. Louis, Mo.





GIVE HIM A CHANCE

You can't expect your profits to rise and shine with Old Man Repairs and Old Boy Refinishing sitting tight on the job.

Repairs? Refinishing? There ought not to be any such words in your business vocabulary.

Repairs and refinishing are like rats in a warehouse—they eat into your profits before you realize it.

Drive 'em out! Join the Loupilco League for Better Furniture Moving and watch your profits take a boom!

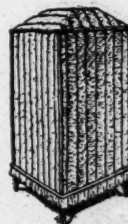
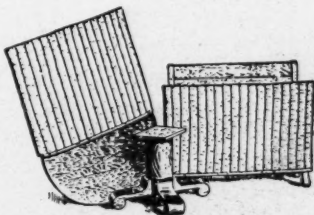
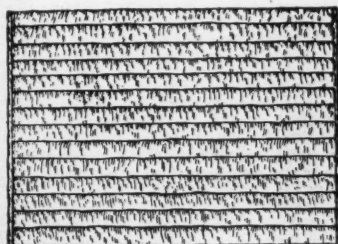
Use Loupilco Furniture Pads (soft, resilient, durable) in moving **all** your furniture and before you know it your Receiving Teller will think you've struck oil sure-nuff.

LOUISVILLE BEDDING COMPANY

Incorporated

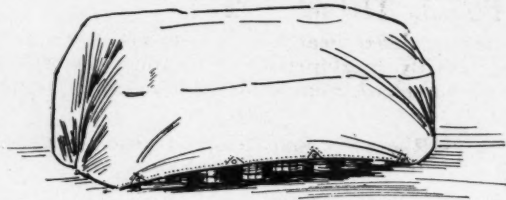
OWNERS OF LOUISVILLE PILLOW COMPANY

Louisville, Kentucky





ARE READY FOR YOU



Sales Agents

W. L. COLEGROVE
Box 438, Greenwich, Conn.

JOHN F. LYNCH
217 W. Madison St., Baltimore, Md.

Keystone Canvas Goods & Flag Co.
1012-1018 Filbert St. Philadelphia, Pa.

The Keystone Canvas Goods and Flag Company is ready to serve you with the best products made.

Keystone Waterproof Storm Covers

For motor trucks, wagons and horses have the ace-high quality that makes them dependable defense against weather's ravages. Radiator and hood covers suited to any need you may have are part of the Keystone line. Write us about your particular needs. Other Keystone quality products you should know and use are:

Coal Sacks
Horse Covers
Van and Loading Pads
Tarpaulins
Victrola Covers

Mailing Sacks
Piano Covers
Dust Covers
Caster Bags
Oil-Skin Cloths

Prompt deliveries assured. Prices on all these products are right prices. There is a Keystone service station near you. Write us for quotations in your vicinity.

KEYSTONE COVERINGS

GIFFORD-WOOD CONVEYORS

Are Speeding-up Production

Their use has been introduced in an endless variety of industries—and in every case their time-saving performances have meant greater output. In loading and unloading, and in dispatching bulk materials they are everywhere giving absolute satisfaction.

Gifford-Wood Co.

Main Office and Works: HUDSON, N. Y.
NEW YORK · BOSTON · CHICAGO · BUFFALO · PHILADELPHIA

We Design and Build

Elevators—Conveyors
Power Plant Coal Handling Equipment
Coal Pockets
Locomotive Coaling Stations
Wagon Loaders
Bagging Loaders
End Thrust and Straight Faced Hoists
Screens—Chutes
Buckets
Chain

Write for Catalog

GIFFORD-WOOD CO.

MAGIC SCRATCH REMOVER



If each of your packers and van men has a Magic Scratch Remover in his pocket, it will save you hundreds of complaints and tons of grief.

It is simple to use and requires no work at all. Just rub over the scratch and it's gone forever.

FREE TRIAL OFFER

Mail this ad with your letter head and we will send you a half dozen postpaid, strictly on approval. See for yourself how quickly they hide scratches, bumps, bruises and mars on any kind of finish.

If the Magic Scratch Removers **make good** send us \$2.60 and they are yours.

On the other hand if you are displeased for any reason whatsoever, return the shipment at our expense and the trial costs you nothing.

You can't lose on this proposition. Take advantage of it **TODAY**.

The M. L. Campbell Co.

708 East 19th St.,

Kansas City, Mo.

If It's
Made
of
Canvas
We
Make
It



Write
for
Stock
List
and
Catalog

Waterproof Storm Covers for Auto Trucks, Wagons and Horses, Tarpaulins, Dust Covers, Piano Covers, Victrola Covers, Tents, Horse Feed Bags, Radiator and Hood Covers, Furniture Loading Pads, Van Liner Pads, Canvas Pads and Bags of every description.

Large Stock--Prompt Deliveries

RICHARDS MFG. CORPORATION,

Philadelphia, Pa.

MAIN OFFICE AND FACTORY: 948-952 NORTH 8th STREET

A FRIENDLY CHAT ON CARPET CLEANING



Do you know that a carpet cleaning department pays? It does and it has a logical place in your warehouse. You haul and store rugs, why not clean them too. The investment is small.

A scrubbing machine for shampooing and a centrifugal separating vacuum cleaner to pick up suds and dirty water are the essential parts of your equipment. The vacuum cleaner removes all the soap, and water, leaving the rugs practically dry.

Connersville Vacuum Cleaners

are of the centrifugal separating type. They were designed expressly for the commercial carpet cleaner. They dry dust and suds suck without change of tools. They automatically discharge all dirt and water directly into the sewer. There are no tanks or buckets to empty or clog up. Many hundred are in use and all are giving complete satisfaction.

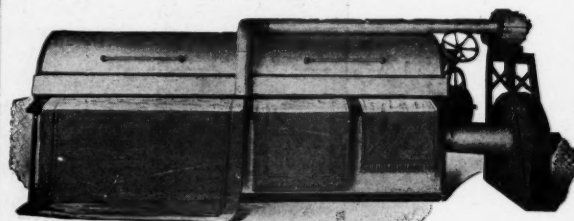
Machines in stock for immediate delivery

Sold by
Electrical & Specialty Supply Co.
9 South Clinton St. CHICAGO, ILL.

Manufactured by
United Vacuum Appliance Division
of LANDERS, FRARY & CLARK
Dept. I Connersville, Indiana

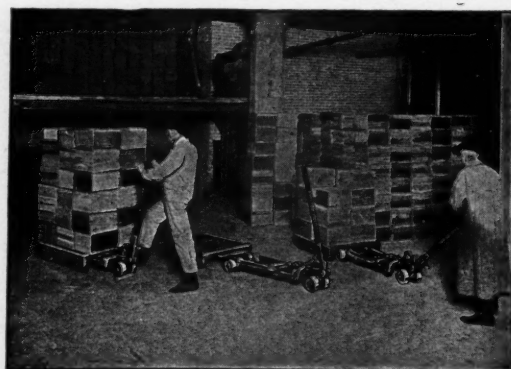
Because there is Big Money in It

storage and warehouse
companies are installing
this big rug cleaning
machine



The most perfect Rug Cleaner made

The Cleveland Laundry Machinery Mfg. Co.
CLEVELAND, O.



Save Money. Time and Labor by Using

"THE HOLYOKE" Transfer Truck

One Man and this truck performs the work of Four Men.

Various models to suit every variety of work.

All strongly built and sold under a liberal guarantee.

Write for Circular B-1

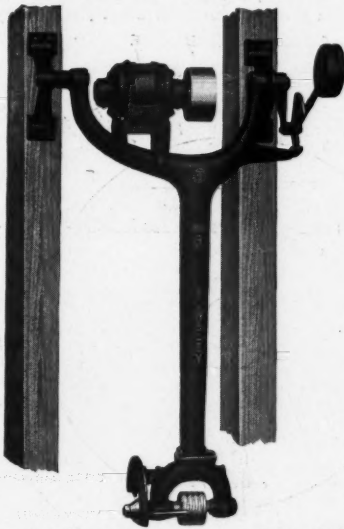
Holyoke Truck Company

Main Office and Factory
105 Race Street, HOLYOKE, MASS.

Export Department:
77 Broad Street, New York City



Quality First—Service Always



PROMPT
SHIPMENT

No. 6 Motor Driven Swing Cut-off Saw

A rapid and accurate cutter. Counter-weight gives quick return to saw, self-centering device for saw, self-oiling boxes. Machine carries blades up to 20-in. without vibration. Write today for Bulletin of motor-driven and belted Swing Saws.

JOHN T. TOWSLEY MFG. CO.
1010 Evans St., Cincinnati, Ohio



Better Protection of goods in shipment and storage

The problem of protecting rugs, carpets, draperies, etc., against moths, mice, germs, while in storage or in transit, is solved by the use of

WHITE TAR PAPER

Made in two grades—Pine Tar and Cedar. Pine Tar for ordinary materials; Cedar for the finest fabrics. Put up in rolls of 12 sheets, each sheet 40 x 48, in full size and in continuous rolls 50 yds. to 1,000 yds. Also heavy tar bag paper cut 5 x 7 and packed 100 sheets to the carton.

We sell Naphthalene Moth Balls, Flakes Crystals, Powder and Blocks; Lavender Compound and Cedar Compound in one-pound and two-pound packages, 100-pound boxes and barrels.

Write today for price list and full information.

The WHITE TAR COMPANY
CLIFF & JOHN STREETS, NEW YORK, N. Y.



IF IT'S PROPERLY COVERED
IT CAN'T SCRATCH

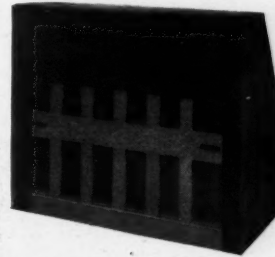


Illustration shows our "cap" style—easy to put on.

DUXBAK PIANO COVERS

Heavy brown tarpaulin canvas lined with strong canton flannel.

Our grand piano cover has leather nose, double sole and ten handles. Any square foot of this cover will support the entire instrument.



BUCKSKIN

VICTROLA

COVERS

Made of tough, soft khaki drill, lined with strong canton flannel. Heavily padded and stitched.

Large size fits instruments corresponding to Victrola No. 14-16.

Small size fits instruments corresponding to Victrola No. 10-11.

Furnished with or without harness.

Cover illustrated has our eight-handle harness permanently attached. Always ready.

Each strap and buckle warranted to stand 1000 lb. strain.



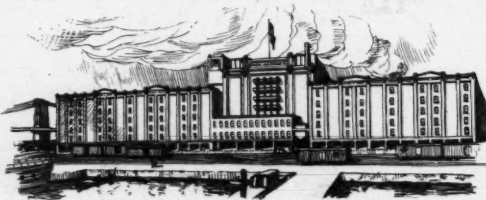
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Made of tough, soft khaki drill, stuffed with new cotton, thoroughly stitched. Popular sizes: 18 x 72, 36 x 72, 54 x 72, 72 x 72.

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•Pelle Products Protect•



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Another of the many storage warehouses equipped with

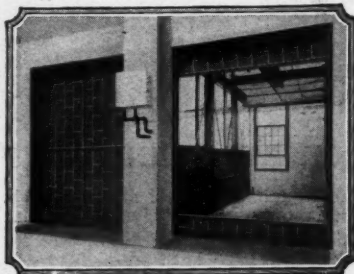
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MAXIMUM efficiency at minimum cost, absolute safety and simplicity of operation, economy of upkeep—these advantages explain why so many concerns, prominent storage warehouses included, have installed PEELLE Truckable Freight Elevator Doors.

PEELLE Doors are the result of years of engineering experience and study. They are built up to a standard of quality, durability and workmanship that make their price small in comparison. The doors operate vertically by electricity, manually or semi-automatically and out of the way in the elevator shaft when opened.

Let us prove that it pays to "put your Elevator Door problems up to PEELLE." Without obligation send for a member of our engineering staff who will be glad to give expert advice.

Beware of imitations called "PEELLE STYLE," "PEELLE TYPE," etc.



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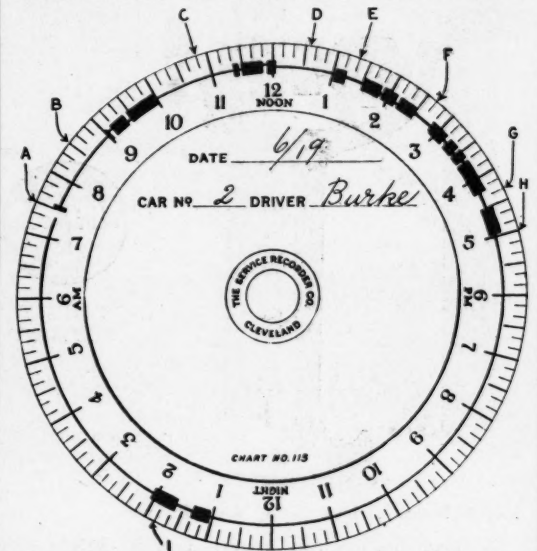
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Here are the facts of one day's operation—facts that the truck owner didn't have to "go out after," but facts which were brought to his desk on the Servis Recorder Chart pictured below.



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A—truck started at 7:30. F—held up 20 minutes (drawbridge).
B—hour and 25 minutes to load. G—stopped 15 minutes (somewhere on return trip. Ask about).
C—hour and 20 minutes (at freight depot). H—put up at garage at 5:00.
D—a lunch hour. I—taken out during night.
E—fifteen minutes (loading).

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TO LAST
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TIME

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So We May Quote You Prices

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Cleveland, Ohio



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Sawing
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and
Crating
Lumber

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The Reliance MOTOR DRIVEN Swing Saw

will save the time and energy of hand cutting—do the work much better and faster—and, being self contained, can be placed anywhere, regardless of power supply.

Easily installed by anybody. Direct or alternating motor. Built in three sizes, to accommodate any class of work.

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CINCINNATI, OHIO



Spur-Gear Chain Block

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From 'Hook-to-Hook' a line of Steel.

Steel Safety Hook and Crosshead. Both are steel forgings designed to swivel and rock.

Steel Suspension Plates connect upper hook and load sheave bearings supporting the load, thereby eliminating castings in this important part.

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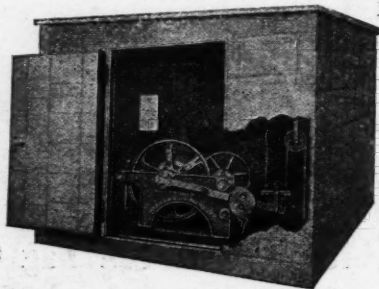
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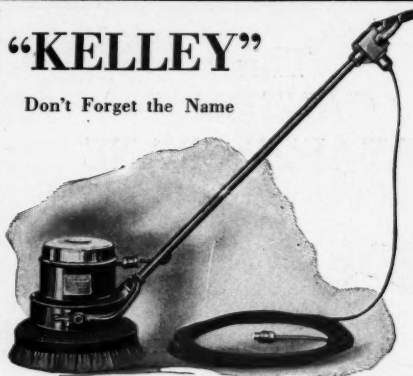
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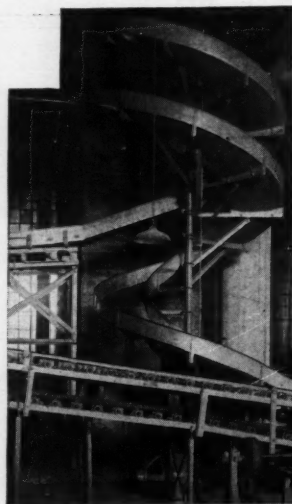
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With Help Scarce
AND
Wages High
NOW
Is the Time
when the need
for our
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SPIRAL CHUTES
VERTICAL LIFTS
AND
MERCHANDISE
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CO.

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It is a practical patented invention, which has been in use for twelve years and has demonstrated its value beyond question. It clamps to window. There is also a swing under bar which is placed under outer end of piano and carries it in or out.

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Also manufacturers of Belts and Bars to hoist Pianos and Ropes, Blocks and Piano Covers.

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by having the

Cylinders Reground


and equipped with new

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Butler Manufacturing Co.

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WILL CUT DOWN YOUR BALL
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BE CONVINCED. SATISFACTION
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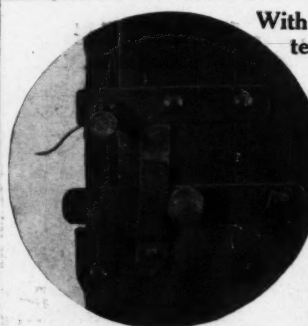
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Manufacturers of
CRATING AND BOXING LUMBER OF ALL KINDS

We refer you to the leading warehouses in Chicago as to the quality of stock we ship.

Wholesale Prices

Stock Guaranteed



With This Seal You Get Better Protection Than With a Dozen Locks

The Brooks Patented Tin-Bottom Seal defies all efforts at tampering. Unlike the finest lock, it cannot be "picked." Patrons are guaranteed protection to their goods stored in warehouses using Brooks seals. Warehouses using Brooks Seals are free from complaints. The unbroken seal, its number being verified, leaves no doubt that any package, trunk, or container is as originally sealed.

We produce metal strip seals for use in the same or variety of other uses. Let us know your needs. Write us for quotations.

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STORAGE SEALS

20% Feed Bill Saver

This means if at present you are feeding 4 qts. to each horse per meal, by feeding crushed oats you save 2.4 qts. The yearly saving is 27 bushels, and figuring oats at 55 cents per bushel means \$15.00 saved on each horse. Just multiply this on each horse you have.

Crushed oats produce bone and muscle and keep horses in better working trim with more staying power, because Crushed Oats gain over whole oats from 15 to 25 per cent in nutriment.

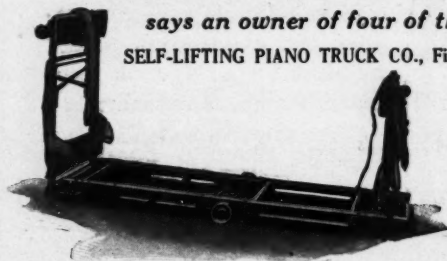
The National is the most economical crusher to do this work—the power consumed costing about 10 cents per horse per month. It frees the food from foreign particles. This crusher will crack corn at the time it's crushing oats. Write for our money-saving booklet on crushed oats feeding—it's free. Write now.

National Oat and Corn Crusher

made by Excel Mfg. Co., Pottersville, N. J.

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says an owner of four of them
SELF-LIFTING PIANO TRUCK CO., Findlay, O.



End
Truck
Covers
Straps

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—who wrote to you with a lead pencil—
“We are saving much money because we do not use typewriters and telephones”?

You might well wonder whether his merchandise was as much out of date as his business methods.

You know that modern time and labor saving appliances are not added expenses, but that they have superseded slower and more costly processes.

The concern which uses your business paper to tell you its business story is simply using a modern piece of selling machinery to make it easier for you to buy intelligently with the least waste of your time and theirs.

For the right kind of advertising shortens the distance between human minds just as certainly as the railroad shortens the distance between places. It is still possible to walk from New York to Chicago, and it is still possible for a business to get along without advertising, BUT—

—bear in mind that the seller who does not advertise does NOT save the cost of advertising, for it costs more to do the work of advertising by other means. Consistent advertisers are progressive merchandisers, and it pays to do business with them.

*You are invited to consult us
freely about Business Papers or
Business Paper Advertising*

The Associated Business Papers, Inc.

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Trade and Technical Papers

Headquarters, 220 W. 42nd St., New York



If you don't find what you want here, your advertisement here will find it for you.

This Exchange section serves a real purpose in the industry by affording a central market place for the disposing of equipment no longer needed, and the securing of special apparatus at bargain prices. If you have any equipment for sale or wish to sell your business, this section is the logical place to advertise. All advertisements in this section will be accepted at a flat rate of three cents per word for each insertion.

WE WANT TO SPEND \$25,000 CASH for unclaimed merchandise left in storage. We will buy for spot cash. Novelties of all kinds, household specialties, toys, knick-knacks, books, post cards, jewelry, pictures, patented articles, "fool" inventions. Anything of which there is a large quantity. Send sample and say how many you have. Our spot cash offer by return. Address Fantus Brothers, 525 So. Dearborn St., Chicago, Ill.

SALESMAN WANTED to sell high-grade line of furniture delivery pads, victrola covers and piano covers. Straight commission; no drawing account. Address Box 566, DISTRIBUTION & WAREHOUSING, 239 West 39th Street, New York, N. Y.

FOR SALE.—Part interest or the entire established storage and moving business in Newark, N. J. Good opportunity for party who will take an active interest in the business. Address Box 565, DISTRIBUTION & WAREHOUSING, 239 West 39th St., New York, N. Y.

FOR SALE.—Storage, warehousing and trucking plant. Fully equipped, going business, can be purchased at once very reasonably. Situated in growing New England city of over a hundred thousand people. Clientele of manufacturers established and organization complete. Address Box 572, DISTRIBUTION & WAREHOUSING, 239 West 39th St., New York, N. Y.

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*Made of Durable
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STOCK SIZES:

36" x 72" 50" x 72" 75" x 72"

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made by
Detroit Canvas Manufacturing Company

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Other Jaqua-Detroit products include:

- Water proof storm covers for horses and wagons,
- Auto truck radiator and hood covers,
- Fleece lined piano covers,
- Table top pads,
- Furniture and van pads.

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Practical ideas, high quality of materials, skilled workmanship and modern manufacturing facilities are combined by the Detroit Canvas Manufacturing Company to make unexcelled products. We solicit the opportunity to demonstrate to buyers in the transfer and storage industry the money-saving ideas and practical utility built into Jaqua-Detroit goods.

Detroit Canvas Mfg. Company
245-247 Larned St., East Detroit, Mich.

JAQUA-DETROIT

PHONOGRAPH COVER

INDEX TO ADVERTISERS

The Advertisers' Index is published as a convenience, and not as a part of the advertising contract. Every care will be taken to index correctly. No allowance will be made for errors or failure to insert.

A	F
Adams Storage & Transfer Co., 81	Federal Motor Truck Co., 6
Albert, 81	Fidelity Fireproof Storage Co., 58
Ahlberg Bearing Co., 119	Fireproof Warehouse & Storage Co., 80
Aluminum Brazing Solder Co., 104	Flag Storage Warehouse, 77
Appalachian Corp., 64	Flexo Seat Co., 118
Arcade Express & Storage Co., 71	Fort Worth Storage & Warehouse, 88
Atlas Fireproof Storage Warehouse, 73	Four Wheel Drive Auto Co., 89
Atlas Storage Warehouse, 82	Frederick's Taxicab & Transfer Co., 81
	Fulton Bag & Cotton Co., 121
B	G
Baltimore Storage & Moving Co., 64	Gardner, R. B., Storage Co., Inc., 60
Beaumont Bonded Warehouse, 55	Garford Motor Truck Co., Second Cover
Bekins Fireproof Storage, 58	General Motors Truck Co., 91
Bekins Household Shipping Co., 61	General Storage & Carage Co., 66
Billings Warehouse & Trading Co., 67	Gifford-Wood Co., 112
Binyon-O'Keefe Fireproof Storage Co., 85	Glenn, O. J., & Son, 72
Blackham Storage & Trucking Co., 73	Godner-Kumm-Fair Co., 81
Blakeslee Co., The Ralph N., 60	Goodyear Tire & Rubber Co., 90
Blanchard Storage Co., Inc., 76	Gordon Fireproof Warehouse & Van Co., 69
Black's Transfer & Storage Co., 83	Graham Storage & Warehouse Co., 64
Bond Fireproof Storage Co., E. M., 85	Gramatan Warehouse, 72
Bradley Stencil Machine Co., 110	
Breen, Wm. H., 119	
Brooks, E. J., 120	
Brown Portable Conveying Machinery Co., 4	
Brimberg & Sons, 73	
Brown Trucking Co., 82	
Buckeye Transfer & Storage Co., 80	
Buffalo Storage & Carting Co., 72	
Butler Mfg. Co., 119	
Buckley Co., T. G., 85	
Bush Terminal Co., 74	
C	H
Cady Moving & Storage Co., 85	Harris Transfer & Warehouse Co., 58
Campbell Co., M. L., 113	Harrisburg Storage Co., 81
Canton Fdry. & Mch. Co., The, 117	Harvey Spring & Forging Co., 88
Carnahan Transfer & Storage Co., 82	Haslett Spiral Chute Spring Co., 118
Carolina Storage & Distributing Co., 78	Haslett Warehouse Co., The, 80
Cathcart Transfer & Storage Co., 61	Hasley Bros., 83
Central Storage Warehouse Co., 79	Haugh & Keenan Storage & Transfer Co., 83
Central Warehouse Co. (Baltimore), 64	Hebard Storage Warehouses, 62
Central Warehouse Co. (St. Paul), 67	Hoeveler Warehouse Co., 84
Chattanooga Transfer & Storage Co., 85	Hogan Transfer & Storage Co., 63
Chelsea Fireproof Storage Warehouses, Inc., 73	Holyoke Truck Co., 114
Class Journal Co., 119	Holyoke Warehouse Co., 66
Cleveland-Akron Bag, 117	Hudson Stores, Inc., 71
Cleveland Laundry Machine Co., 114	Hookway Storage Warehouse, 77
Cleveland Storage Co., 79	
Clyde Cars Co., 120	
Columbia Transfer Co., 72	
Cold Spring Storage Co., 72	
Cole & Gray, 71	
Commercial Truck & Storage Co., 87	
Cotter Transfer & Storage Co., 80	
Crane Fuller Co., 116	
Crutcher Warehouse Co., L. T., 67	
Cummins Storage Co., 78	
D	I
De Camp, Inc., Job, 71	Iden Co., Wm. A., 123
Denby Motor Truck Co., Front Cover	Indianapolis Warehouse Co., 63
Depenthal Truck & Storage Co., 80	Inland Machine Works, 107
Detroit Canvas Mfg. Co., 122	Interstate Forwarding Co., 85
Detroit Storage Co., 66	International Warehousing Co., 82
Dewey & Co., Geo. E., 93	International Time Recording Co., 100
Duplex Truck Co., 93	Island & Terminal Transfer Co., 80
Duggan Transfer Co., 87	
E	J
Edison Storage Battery Co., 96	Jones-Clark Trucking & Storage Co., 78
Eldridge Express & Storage Co., 69	Jones Lumber Co., G. W., 120
Electrical Specialty Supply Co., 118	Judson Freight Forwarding Co., 3
Elmira Storage Sales Co., Inc., 73	
Empire Storage Warehouse, 77	
Empire Storage Co., 82	
Erie Storage & Carting Co., 81	
Excel Mfg. Co., 120	
Exchange, The, 121	
F	K
	Kaufman Fireproof Storage Warehouses, 65
	Kelly-Springfield Tire Co., 92
	Keystone Canvas Goods & Flag Co., 112
	Keystone Storage Co., 81
	Kilbourne & Jacobs Mfg. Co., 97
	Kinderman, Julius, & Son, 75
	King Storage Warehouse, 77
	Kingsley, Geo. S., 108
	Kissell Motor Car Co., 101
	Knickerbocker Storage Co. (Cleveland), 79
	Knickerbocker Storage Warehouse Co. (Newark), 71
	Kutzbach-McNally Co., 80
G	L
	Lake Shore Moving & Storage, 79
	Lawrence Warehouse, Oakland, Sacramento, San Francisco, 60
	Lertz & Son, L., 68
	Lincoln Fireproof Storage Co. (Cleveland), 80
	Lincoln Storage Co. (Dayton), 80
	Lincoln Warehouse (E. Orange), 69
	Long Island Storage Warehouses, 77
	Louisville Bedding Co., 111
	Lyon Storage Co., 70

INDEX TO ADVERTISERS

The Advertisers' Index is published as a convenience, and not as a part of the advertising contract. Every care will be taken to index correctly. No allowance will be made for errors or failure to insert.

M		S		
Maish Co., Chas. A.	124	Safety Transfer & Storage Co., Inc.	63	
Mason Transfer & Storage Co.	86	Safety Storage Van & Package Co.	82	
Mason & Co., Inc., Volney W.	118	Savage Transfer Co.	65	
Mathews Gravity Carrier Co.	138	Schantz Co., Joseph A.	76	
McAllister Warehouse Co.	87	Schenectady Storage & Trucking Co.	77	
McGinn Co., The	71	Security Storage & Truck Co. (Balti-		
Mead Morrison Mfg. Co.	106	more)	65	
Merchants Parcel Delivery Co.	82	Security Warehouse Co. (Minne-		
Mercantile Storage & Warehouse	69	apolis)	71	
Merchandise Storage Co., The	80	Security Warehouse & Transfer Co.		
Merchants Transfer Co.	86	(Missoula)	67	
Metropolitan Storage Warehouse Co.	73	Selden Truck Sales Co.	94	
Miller North Broad Storage Co.	82	Self-Lifting Piano Truck Co.	120	
Miller & Lemington	87	Sells & Co., H. W.	119	
Minneapolis Terminal Warehouse		Service Recorder Co.	116	
Co.	67	Shanahan Transfer & Storage Co.	84	
Minot Warehouse & Storage Co.	79	Shank Fireproof Storage Co.	67	
Model Storage Warehouse	71	Shatuck & Nimmo Warehouse Co.	58	
Monarch Warehouse	72	Sheldon's Transfer & Storage Co.	96	
Monroe Warehouse Co.	77	Signode System, Inc.	121	
Montgomery & Co.	81	Smith Transfer & Storage Co.	90	
Monumental Storage Co.	65	Smith, W. Cady	77	
Mooney's Storage Warehouse	71	Soo Terminal Warehouse Co.	62	
Moores & Dunford	56	Southco, John B.	72	
Morgan & Brother	75	Southern Bonded Warehouse Corp.	85	
Morr, D. A., Transfer & Storage Co.	68	Southern Sales & Storage Co.	61	
Morrow Transfer & Storage Co.	61	Southern Transfer & Distributing Co.	61	
Mott Haven Storage Warehouse Co.	73	Stacy Storage Co.	78	
Murdoch Storage & Transfer Co.	84	Sar Transfer Co., A. A.	86	
		Sterling Motor Truck Co.	105	
		Stevens & Son, H. A.	73	
		Stewart Motor Corp.	53	
		Strang, Chas. D.	72	
		Student's Express & Transfer Co.	58	
		Syracuse Furniture & Forwarding		
		Co.	77	
N		T		
Neal Fireproof Storage Co.	80	Terminal Warehouse Co. (Little Rock,		
Nelson Motor Truck Co.	103	Ark.)	58	
New Bedford Storage Warehouse	66	Terminal Warehouse & Transfer Co.		
New York Dock Co.	75	(Philadelphia)	83	
New York Tent & Tarpaulin Co.	115	Terminal Wharf & Railroad Ware-		
Nickerson & Co.	121	house Co. (Boston)	63	
Ninth St. Terminal Warehouse Co.	79	Toledo Canvas Pad Co.	121	
North Philadelphia Storage Co.	82	Toledo Merchants' Delivery Co.	80	
North River Warehouse	73	Towles Mfg. Co., John T.	115	
		Trailmobile Co.	106	
		Trans-Continental Freight Co.	1	
		Transfer & Storage Directory	102	
		Troth's Model Warehouses	69	
		Tulsa Warehouse Co.	61	
		Turner Cartage Co.	67	
		Twentieth Century Storage Warehouse		
		Co.	83	
		Tying Warehouse & Storage	86	
O		U		
Oakland Exp. & Transfer Co.	84	United States Rubber Co.	55	
O-K Transfer & Storage Co.	81	Union Terminal Warehouse Co (Los		
O'Neill, John	84	Ange les, Calif.)	59	
		Union Terminal Warehouse Co.		
		(Jacksonville, Fla.)	61	
		Union Storage Co.	80	
		United States Storage Co., Inc.	61	
		United Vacuum Appliance Division	114	
		United Warehouse Co.	86	
		Utica Cartage & Storage Co.	78	
P		V		
Pacific Storage & Transfer Co.	87	Vandam Warehouse Co., Inc.	76	
Pacific Storage & Warehouse Co.	69	Van Haaren & Son Storage	66	
Pagels, Fred	73			
Paige-Detroit Motor Car Co.	95			
Peasley Transfer & Storage Co.	61			
Pelle Co.	116			
Penn Storage & Van Co.	82			
Petry Express & Storage Co.	71			
Pettit's Storage Warehouse Co.	62			
Post, R. F., Estate	84			
Pittsburgh Distributing Co.	84			
Pruden, C. D.	110			
Q		W		
Quackenbush Warehouse Co (Scran-		Wallace Transfer & Forwarding Co.	79	
ton)	84	Wagner Fireproof Storage & Truck		
		Co.	80	
		Walker Vehicle Co.	Third Cover	62
		Warner Warehouse Co.		82
		Weathered Transfer & Storage Co.		86
		Weber Express & Storage Co.		84
		Welcher Transfer & Storage Co.		63
		Weiserfield Warehouse Co.		61
		West End Storage Warehouse		75
		Western Transfer & Storage Co.		85
		White Company	Back Cover	115
		White Tar Co.		61
		Williams Shipping Agency		76
		Wittichen Coal & Transfer Co.		58
R		Y		
Redhead Storage Co.	80	Yale & Towne Mfg. Co.	117	
Reno-Kaetler Elec. Co.	117	Yakima Transfer Co.	87	
Republic Motor Truck Co.	54	Young, William	78	
Revoluter Co.	2			
Richards Mfg. Corp.	113			
Rochester Carting Co.	77			
Roger Sherman Transfer Co.	60			



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VAN LINER PADS

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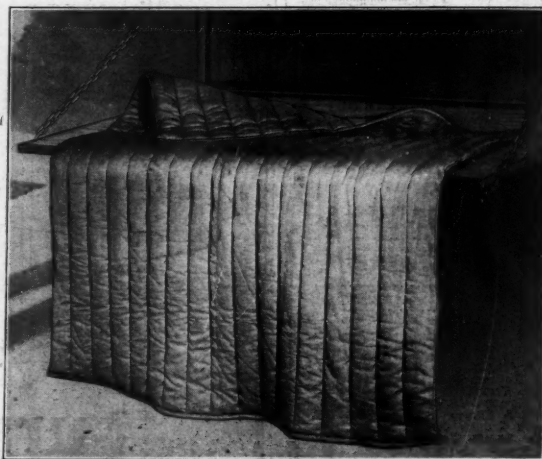
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No. 20 Cut Size, 54x72....	Each \$3.15
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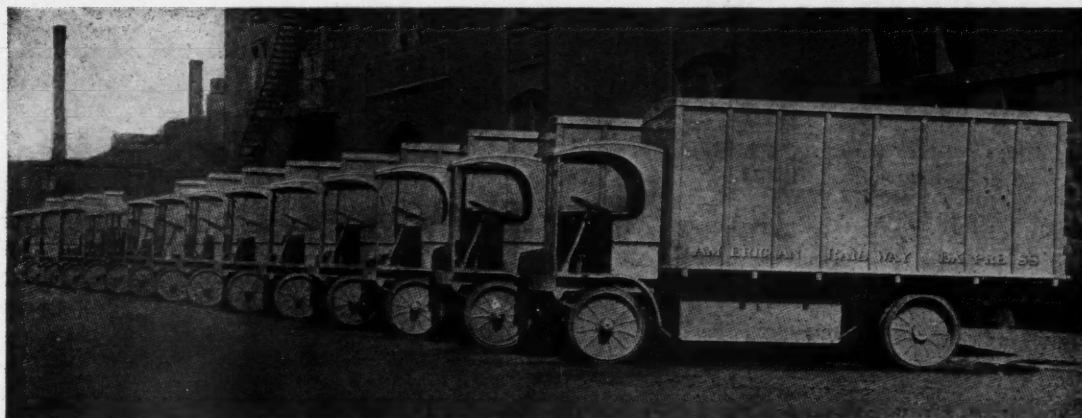
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Walker Electrics are used *profitably* in most industries.

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WALKER VEHICLE COMPANY

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LOWEST-TRUCKING-COST

White Trucks



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Fifteen Freight Cars and Many Horses Replaced by White Fleet

TWELVE 5-ton White Trucks operated by the Brockton Transportation Company have replaced fifteen freight cars and scores of horses in hauling merchandise between Brockton and Boston.

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